

# NOTICES OF FINAL RULEMAKING

The Administrative Procedure Act requires the publication of the final rules of the state's agencies. Final rules are those which have appeared in the *Register* 1st as proposed rules and have been through the formal rulemaking process including approval by the Governor's Regulatory Review Council. The Secretary of State shall publish the notice along with the Preamble and the full text in the next available issue of the *Arizona Administrative Register* after the final rules have been submitted for filing and publication.

## NOTICE OF FINAL RULEMAKING

### TITLE 10. LAW

#### CHAPTER 4. ARIZONA CRIMINAL JUSTICE COMMISSION

#### PREAMBLE

1. **Sections Affected**

- ✓ R10-4-103
- ✓ R10-4-104
- ✓ R10-4-106
- ✓ R10-4-108

**Rulemaking Action**

- Amend
- Amend
- Amend
- Amend

2. **The specific authority for the rulemaking, including both the authorizing statute (general) and the statutes the rules are implementing (specific):**

Authorizing statutes: A.R.S. § 41-2405(A)(8)

Implementing statute: A.R.S. § 41-2407

3. **Effective Date of the Rule:**

June 12, 1997

4. **A list of all previous notices appearing in the Register addressing the final rule:**

Notice of Rulemaking Docket Opening:

2 A.A.R. 4598, November 8, 1996

Notice of Proposed Rulemaking:

2 A.A.R. 5015, December 20, 1996

5. **The name and address of agency personnel with whom persons may communicate regarding the rulemaking:**

Name: Rita J. Yorke, Program Manager, Crime Victims Programs

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6. **An explanation of the rule, including the agency's reasons for initiating the rule:**

Public Law 104-132, Antiterrorism and Effective Death Penalty Act of 1996, contains provisions which require states, in order to remain eligible for Victim of Crime Act matching funds, to provide compensation and assistance to their state's residents who, while outside of the United States, become victims of a terrorist act or mass violence. In addition, the Act prohibits states from awarding victim compensation benefits to any person convicted of a federal crime who is delinquent in paying a fine, monetary penalty, or restitution imposed for the offense.

7. **A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision of this state:**

Not applicable.

8. **The summary of the economic, small business and consumer impact:**

The proposed amendment to the Crime Victim Compensation rules will impact a resident of the state of Arizona who, while outside the United States, becomes a victim of a terrorist act or mass violence. Such a resident will be eligible for Crime Victim Compensation from the state of Arizona. In addition, a person who has been convicted of a federal crime and is delinquent in paying a fine, monetary penalty, or restitution imposed for the offense will be prohibited from receiving Crime Victim Compensation funds.

Businesses and employers in this state may ultimately benefit from the rule amendment because of the additional funds available from the Federal Government to compensate an Arizona resident who becomes a victim of an international terrorist act. The bur-

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den of assistance to this population of victims currently falls to community resources and community assistance agencies.

Taxpayers will ultimately benefit from the amendment because the availability of additional federal funds, which are derived from fees and fines paid by persons convicted of federal felonious crimes, to compensate a state resident who has been a victim of an act of international terrorism. The state, by complying with the federal requirement, will also become eligible for additional federal funds in the event of a terrorist act occurring within the boundaries of the state.

Within the Arizona Criminal Justice Commission and the operational units in each county, there will be no significant costs in implementing the additional eligibility.

9. **A description of the changes between the proposed rules, including supplemental notices, and final rules (if applicable):**

Changes were made to improve the clarity, conciseness, and understandability of the rule language and to clarify the responsibilities of the operational unit and the Crime Victim Compensation Board.

10. **A summary of the principal comments and the agency response to them:**

There were no comments received from the public.

11. **Any other matters prescribed by statute that are applicable to the specific agency or to any specific rule or class of rules:**

Not applicable.

12. **Incorporations by reference and their location in the rules:**

18 U.S.C. 2331, incorporated by reference in R10-4-103(3)(b), (d), (e), and (f)(i); R10-4-103(12), (14), (15), (20)(b) and (d); R10-4-104(D) and (E); R10-4-106(B)(5), (8), (8)(a), (c), (d), (e), (f), (g), and (h); R10-4-108(B)(1), (2), (3), and (4); (C)(1), (2), (3), and (4); and (E)(3)(a) and (b).

13. **Was this rule previously adopted as an emergency rule?**

No.

14. **The full text of the rules follows:**

#### TITLE 10. LAW

#### CHAPTER 4. ARIZONA CRIMINAL JUSTICE COMMISSION

##### ARTICLE 1. CRIME VICTIM COMPENSATION PROGRAM

###### Section

- R10-4-103. Definitions
- R10-4-104. Administration of the Fund
- R10-4-106. Operation Unit Requirements
- R10-4-108. Award Criteria

##### ARTICLE 1. CRIME VICTIM COMPENSATION PROGRAM

###### R10-4-103. Definitions

In these rules:

1. "Allowable expense" means ~~expenses a cost for which awards are a compensation award is authorized pursuant to under these Rules rules and made by operational units the Crime Victim Compensation Board to a victims victim, and a derivative victims victim, or both, for economic loss.~~
2. "Board" means the Crime Victim Compensation Board for each an operational unit unit's jurisdiction.
3. "Claimant" means any natural person who is legally present in the United States filing a claim pursuant to under these Rules rules and authorized to receive an a compensation award for economic loss because such the person is:
  - a. A victim of criminally injurious conduct ~~that occurs while the person is legally present in the United States;~~
  - b. A resident of this state who is injured by an act of international terrorism as defined in 18 U.S.C. 2331, 1992 (and no later editions or amendments) which is incorporated by reference and on file with the Com-

mission and the Office of the Secretary of State;

b.c. A derivative victim;

c.d. A person authorized to act on behalf of victim, or a person authorized to act on behalf of a dependent of a deceased victim if ~~such the~~ victim died as a direct result of the criminally injurious conduct or; an act of intentional terrorism as defined in 18 U.S.C. 2331; or

d.e. A person who assumes the obligation or pays the expense directly related to the economic loss incurred as a direct result of the criminally injurious conduct, or an act of international terrorism as defined in 18 U.S.C. 2331.

e.f. Claimant does not include:

- i. ~~The An offender, or an accomplice of the offender, or one who encouraged or in any way participated in or facilitated the criminally injurious conduct, or an act of international terrorism as defined in 18 U.S.C. 2331;~~
- ii. A person serving a sentence of imprisonment in any detention facility, home arrest program, or work furlough, or any person who has escaped from serving a sentence of imprisonment in any detention facility, home arrest program, or work furlough at the time of the criminally injurious conduct; or
- iii. A person convicted of a federal crime who is delinquent in paying a fine, monetary penalty, or restitution imposed for the offense if the U.S. Attorney General and the Director of the Administrative Office of the U.S. Courts have issued a written determination that the entities administering federal victim programs have access to an accurate and efficient criminal debt payment tracking system.

4. "Collateral source" means a source of benefits or advantages compensation for economic loss otherwise compensable that the a claimant has received, or that is available to the a claimant, from any of the following including:
    - a. No change.
    - b. The government of the United States or any of its agencies, a state or any of its political subdivisions, or an instrumentality of 2 or more states, unless the law providing for the benefits or advantages compensation makes them it excess or secondary to benefits under this Rule rule; specifically excluding those federal funds granted pursuant to under 42 U.S.C. 10602;
    - c. No change.
    - d. No change.
    - e. No change.
    - f. No change.
    - g. Proceeds of a contract of insurance payable to the claimant for loss that he the claimant sustained because of the criminally injurious conduct or act of international terrorism; or
    - h. No change.
  5. No change.
  6. No change.
  7. No change.
    - a. No change.
    - b. A person living in the household of a victim who died as a result of criminally injurious conduct, in a relationship determined by the Board to be substantially similar to the a relationship in subparagraph (a) subsection (7)(a).
    - c. No change.
    - d. No change.
    - e. No change.
  8. "Economic loss" means economic financial detriment consisting only of medical expenses, mental health counseling and care expenses, work loss, and funeral expenses.
  9. "Extreme Mental Distress mental distress" means a substantial personal disorder of emotional processes, thought, or cognition which that impairs judgment, behavior, or ability to cope with the ordinary demands of life.
  10. No change.
  11. "Funeral expense" means any reasonable charges charge that are is incurred for expenses directly related to as a direct result of the a victim's funeral, and cremation, or burial.
  12. "International terrorism" means as act as defined at 18 U.S.C. 2331;
  - 12.13. "Jurisdiction" means any County county within this State state.
  - 13.14. "Medical expense" means expense a cost related to medical care attributable to a physical injury resulting from criminally injurious conduct or an act of international terrorism, as defined in 18 U.S.C. 2331. It includes a cost resulting from damage to prosthetic devices or dental devices. It does not include that portion of a charge for a room in a hospital, clinic, convalescent home, nursing home, or any other institution engaged in providing nursing care and related services in excess of a charge for semi-private accommodations, unless accommodations other than semi-private accommodations are medically required.
  - 14.15. "Mental health counseling and care expense" means the expense a cost related to the assessment, diagnosis, and treatment of an individual's mental and emotional functioning that is required to alleviate extreme mental distress resulting from the criminally injurious conduct or an act of terrorism, as defined in 18 U.S.C. 2331. It does not include that portion of a charge for a room in a hospital, clinic, convalescent home, nursing home, or any other institution engaged in providing nursing care and related services in excess of a charge for semi-private accommodations, unless accommodations other than semi-private accommodations are medically required.
  - 15.16. "Operational Unit unit" means a victim compensation program public or private agency that is authorized or to established establish and a crime victim compensation program and to receive, evaluate, and present to the Board, under these rules and state law, compensation claims from claimants, pursuant to these Rules and State law.
  - 16.17. No change.
  17. "Property Damage" does not include damage to prosthetic devices or dental devices, which are covered "medical expenses" as defined in (13) above.
  18. No change.
  19. "Work loss" means loss of a reduction in income from work that the a victim would have performed if the victim had not been injured or killed, reduced by minus any income from substitute work performed by the victim, or by income the victim would have earned in available appropriate substitute work that the victim was capable of performing but unreasonably failed to undertake.
  20. "Victim" means a person who suffers physical injury, extreme mental distress, or death as a direct result of any of the following:
    - a. Criminally injurious conduct that occurs while the person is legally present in the United States;
    - b. An act of international terrorism as defined in 18 U.S.C. 2331;
    - b.c. The A good faith effort of any person to prevent criminally injurious conduct; or
    - c.d. The A good faith effort of any person to apprehend a person suspected of engaging in criminally injurious conduct or an act of international terrorism, as defined in 18 U.S.C. 2331.
- R10-4-104. Administration of the Fund**
- A. The Commission shall deposit in the Crime Victim Compensation Fund all funds monies received pursuant to under A.R.S. § Title 12, Chapter 1, Section 12-116.01 and those funds received monies from any federal source for compensating victims of crime in the Victim Compensation Fund.
  - B. The Commission shall designate, at the beginning of each state fiscal year, 1 operational unit within a jurisdiction One operational unit within a jurisdiction shall be annually designated by the Commission to receive an allocation from the Fund.
  - C. The Commission shall distribute a portion of the Fund to each designated operational unit for expenditure by the Board, based on a uniform base amount to be determined annually by the Commission from staff recommendations derived from an analysis of the prior year expenditure history, with any remaining monies to be divided among jurisdictions on a population basis.
  - D. The Commission shall reserve a portion of the Fund in an amount equal to the lesser of \$50,000 or 10% of the Fund to be used in the event of an unforeseen upsurge increase of victimization by criminally injurious conduct or acts of international

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terrorism as defined in 18 U.S.C. 2331, compensation for which cannot be provided by any operational unit.

- E. ~~In such an event, as stated in subsection (D) of this Rule, If there is an unforeseen increase in victimization by criminally injurious conduct or acts of international terrorism, as defined in 18 U.S.C. 2331, the Commission shall allow a claimant to make direct application apply directly to the Commission for compensation based upon criteria required established by R10-4-108.~~
- F. ~~Should If any money received from the Commission remain remains unexpended in by the Board an operational unit at the end of the a fiscal year, such money the operational unit shall be returned return the unexpended money to the Commission which shall and redeposited redeposit the unexpended money in the Fund for use in the next fiscal year.~~
- G. ~~An operational unit that raises additional funds monies for victim compensation shall submit a written report to the Commission that tells of the amounts amount of the additional monies distributed to compensate victims of crime, from such funds during the prior year as allowable expenses for the purpose of receiving the effective federal matching level of Victim of Crime Act fund in existence at the time. The Commission shall apply for such federal funds and if received shall forward the funds to the appropriate operational unit. The Commission shall use the information in the written report to apply for federal matching of the additional monies from the Victim of Crime Act Fund. If the matching monies are received, the Commission shall forward the matching monies to the appropriate operational unit.~~

**R10-4-106. Operation Unit Requirements**

- A. ~~A public or private agency seeking A letter requesting designation as an operational unit and funding by the Commission shall be submitted submit to the Commission a letter requesting designation.~~
- B. ~~In or to To be eligible to receive designation and funding by the Commission as the operational unit for a jurisdiction, the a unit must shall agree to: meet the following requirements:~~
1. ~~The unit shall not Not use Commission funds or federal funds to supplant those funds otherwise available to the program for crime victim compensation;~~
  2. ~~The unit, as to criminally injurious conduct occurring within its jurisdiction, shall make compensation awards to Not discriminate in evaluating claims made by or on behalf of victims and derivative victims of criminally injurious conduct occurring within its jurisdiction who are nonresidents of the jurisdiction or the State on the same basis as residents and those who are residents of the jurisdiction;~~
  3. ~~The unit shall provide Forward to the Board compensation claims of to victims and derivative victims of criminally injurious conduct occurring within this State state.~~
  4. ~~The unit shall provide Forward to the Board compensation claims to of victims and derivative victims of criminally injurious conduct occurring within such the unit's jurisdiction.~~
  5. ~~The unit shall provide Forward to the Board compensation claims to of residents of the unit's jurisdiction who are victims or derivative victims of criminally injurious conduct which that occurs in another State state, the District of Columbia, Puerto Rico, or in any other possession or territory of the United States which that does not have a crime victim compensation program which that meets the requirements of 42 U.S.C. 10602(b)(1)-(6) or of an act of international terrorism as defined in 18 U.S.C. 2331.~~
6. ~~The unit shall provide Provide notice to the Commission of any changes in the unit's procedures prior to the time such before the changes take effect. If such the changes are of a material, nature, such the unit must shall receive prior written approval from the Commission before instituting such the changes;~~
7. ~~The unit shall submit Submit a written quarterly report to the Commission detailing that describes in detail its activities under this Rule rule, with emphasis including on the impact that Commission funds had on the unit. Such The report shall also include:~~
- a. ~~The amount and each source of revenue for the unit for victim correspondence;~~
  - b. ~~Claim statistics, including the The total number of claims, awards, denials, pending claims, total amount of awards; and the ethnic background, national origin, handicap, age, and sex of each victim;~~
  - c. ~~Claim analysis, including the The average amount of all awards; the number and total amount of awards for federal victims and nonresident victims; the number and amount of awards by type of crime; and the number and amount of awards by type of expenses expense, including medical, mental health counseling, dental, work loss, and funeral;~~
  - d. ~~Analysis of mental health counseling awards by The type of provider for mental health counseling and care awards including psychiatrist, psychologist, rape crisis center, and community mental health centers center; the number, and amount, of awards; and duration of mental health counseling and care awards; and~~
  - e. ~~Referral sources to the unit Sources that referred victims to the unit;~~
8. ~~The unit shall make Make application forms available to all persons who claim an award as a result of criminally injurious conduct which that occurred within such the unit's jurisdiction or of an act of international terrorism, as defined in 18 U.S.C. 2331. The application form must shall, at a minimum, contain the following information:~~
- a. ~~The name, address, ethnic background, national origin, age, and sex of the victim or derivative victim of the criminally injurious conduct or an act of international terrorism, as defined in 18 U.S.C. 2331, and the name and address of the claimant, and the relationship of the claimant to the victim;~~
  - b. ~~If the victim is deceased, the name and address of each derivative victim and the extent to which each was dependent upon the victim for financial support;~~
  - c. ~~The nature of the criminally injurious conduct or act of international terrorism, as defined in 18 U.S.C. 2331, that is the basis for the claim and the date on which the conduct occurred;~~
  - d. ~~The law enforcement agency or officer to whom the criminally injurious conduct or act of international terrorism, as defined in 18 U.S.C. 2331, was reported;~~
  - e. ~~The nature and extent of the injuries that the victim sustained from the criminally injurious conduct or act of international terrorism, as defined in 18 U.S.C. 2331, the name and address of any person who gave medical treatment to the victim for the injuries, the name and address of any hospital or similar institution where the victim received medical treatment for the injuries, and whether the victim died as a result of the injuries;~~

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- f. The economic loss that a victim, a derivative victim, or a claimant sustained as a result of the criminally injurious conduct or an act of international terrorism, as defined in 18 U.S.C. 2331;
  - g. The amount of benefits or advantages compensation that the victim, a derivative victim, or a claimant has received or is entitled to receive from any collateral source for economic loss that resulted from the criminally injurious conduct or an act of international terrorism, as defined in 18 U.S.C. 2331, and the name of each collateral source;
  - h. An affirmation That that the claimant is not an illegal alien; is not the offender, accomplice, or facilitator; and is not serving or was not serving a sentence of imprisonment in any detention facility, home arrest program, or work furlough; or and has not escaped from serving a sentence of imprisonment in any detention facility, home arrest program, or work furlough, at the time of the criminally injurious conduct or an act of international terrorism, as defined in 18 U.S.C. 2331. A unit shall not exclude a person convicted of a federal crime who is delinquent in paying a fine, monetary penalty, or restitution imposed for the offense from receiving benefits unless the U.S. Attorney General and the Director of the Administrative Office of the U.S. Courts have issued a written determination that entities administering federal victim programs have access to an accurate and efficient criminal debt payment tracking system; and
  - i. A release authorizing such the unit's investigative agent to obtain any report, document, or information that relates to the determination of the claim for an award of compensation that is requested in the application.
9. Upon receipt of an application for compensation such unit shall refer the application to such unit's investigative agent. Within 60 days of receipt of the application by the operational unit, except where due cause exists, a decision whether to make an award and, if so, its terms and amount shall be made by the unit's Board based upon the investigative agent's findings, and the applicant shall be informed of the Board's decision in writing, within 5 days of the decision.
- 10.9. The unit shall comply Comply with all applicable civil rights requirements;
- 11.10. The unit shall assure Ensure the Commission that it will monitor monitors, investigate investigates, and substantiate substantiates each claim for compensation before making forwarding the claim to the Board to make an award; and
- 12.11. The unit shall provide Provide such other information and assurances as the Commission may require in order to carry out any of its duties or responsibilities.

**R10-4-108. Award Criteria**

A. An operational unit's Board shall decide, based upon the investigative agent's findings, whether to make an award and, if so, the terms and amount of the award within 60 days of receipt of the application by the operational unit except where due cause exists. The Board shall inform the applicant of the Board's decision in writing within 5 days of the decision.

A.B. The operational unit Board shall not make an a compensation award unless it ensures determines that:

- 1. A crime Criminally injurious conduct or act of international terrorism, as defined in 18 U.S.C. 2331, was committed;

- 2. Such crime The criminally injurious conduct or act of international terrorism, as defined in 18 U.S.C. 2331, directly resulted in physical injury to, extreme mental distress to, or death of the victim;
- 3. The crime criminally injurious conduct or act of international terrorism, as defined in 18 U.S.C. 2331, was reported to the appropriate law enforcement authorities within 72 hours after its discovery unless good cause is shown to justify a delay; and
- 4. The application for an a compensation award was submitted to the operational unit with 1 year of the discovery of the crime or act of international terrorism, as defined in 18 U.S.C. 2331, unless good cause is shown to justify a delay.

B.C. The operational unit Board shall make compensation awards from the Fund only for the following:

- 1. Medical expenses attributable to a victim's physical injury or death resulting from criminally injurious conduct or an act of international terrorism, as defined in 18 U.S.C. 2331;
- 2. Work loss attributable to a victim's physical injury, extreme mental distress, or death resulting from criminally injurious conduct or an act of international terrorism, as defined in 18 U.S.C. 2331, provided such the compensation award for work loss does not exceed an amount equal to 40 hours per week at the current federal minimum wage standard; for each week of work loss to the maximum allowable per R10-4-108(C)(1); under subsection (D)(1) and shall be awarded as a portion of the maximum award. An A compensation award for work loss attributable to a victim's death resulting from criminally injurious conduct or an act of international terrorism, as defined in 18 U.S.C. 2331, may be made to a surviving spouse, child, sibling, or parent of the victim if the Board determines the death resulted in a loss of support from the victim to the spouse, child, sibling, or parent provided such an the award for work loss does not exceed an amount equal to 40 hours per week at the current federal minimum wage standard; for each week of work loss to the maximum allowable per R10-4-108(C)(1) under subsection (D)(1); and shall be awarded as a portion of the maximum award. An A compensation award to the parent or guardian of a minor victim may be made for work loss attributable to transporting or accompanying the victim to a medical or mental health counseling and care visit, provided the award for work loss does not exceed an amount equal to 40 hours per month at the current federal minimum wage standard for each month of work loss to and the maximum allowable per R10-4-108(C)(1) under subsection (D)(1); and shall be awarded as a portion of the maximum award.
- 3. Funeral expenses attributable to a victim's death resulting from criminally injurious conduct or an act of international terrorism, as defined in 18 U.S.C. 2331, provided such the compensation award for funeral expenses does not exceed \$2,500; and
- 4. Mental health counseling and care expenses attributable to a victim's or derivative victim's extreme mental distress resulting from criminally injurious conduct or an act of terrorism, as defined in 18 U.S.C. 2331, provided such the counseling and care shall does not exceed a 12-month period starting with the 1st treatment. Mental health counseling and care for derivative victims shall be included as a portion of the maximum award.

C.D. The operational unit Board shall not fund an make a compensation claim of a claimant award to the extent that it exceeds:

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- I. No change.

## TITLE 12. NATURAL RESOURCES

**PREAMBLE**

### **Rulemaking Action**

R12-1-101	Amend
R12-1-102	Amend
R12-1-103	Amend
R12-1-202	Amend
R12-1-204	Amend
R12-1-418	Amend
R12-1-419	Amend
R12-1-438	Amend
R12-1-448	New Section
R12-1-506	Amend
R12-1-511	New Section
R12-1-521	Amend
R12-1-523	Amend
R12-1-541	Amend
R12-1-605	Amend
R12-1-610	Amend
R12-1-614	Amend
R12-1-901	Amend
R12-1-902	Amend
R12-1-903	Amend
R12-1-907	Amend
R12-1-909	Amend
R12-1-912	Amend
Article 11	Repeal
R12-1-1101	Repeal
R12-1-1102	Repeal

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R12-1-1103	Repeal
R12-1-1104	Repeal
R12-1-1302	Amend
R12-1-1306	Amend
R12-1-1502	Amend
R12-1-1503	Repeal
R12-1-1504	Amend
R12-1-1505	Amend
R12-1-1506	Amend
R12-1-1507	Amend
R12-1-1508	Amend
Appendix A.	Repeal
R12-1-1715	Amend
R12-1-1716	Amend
R12-1-1721	Amend
R12-1-1723	Amend
R12-1-1742	Amend
R12-1-1743	Amend
R12-1-1751	Amend

**2. The specific authority for the rulemaking, including both the authorizing statute (general) and the statutes the rules are implementing (specific):**

Authorizing statutes: A.R.S. § 30-654(B)

Implementing statute: A.R.S. §§ 30-656, 30-657(A), 30-672, 30-681, 30-683, and 30-696

**3. Effective Date of the Rule:**

June 13, 1997

**4. A list of all previous notices appearing in the Register addressing the final rule:**

Notice of Rulemaking Docket Opening:

2 A.A.R. 3803, August 30 1996

Notice of Proposed Rulemaking:

3 A.A.R. 85, January 10, 1997

**5. The name and address of agency personnel with whom persons may communicate regarding the rulemaking:**

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Fax: (602) 437-0705

**6. An explanation of the rule, including the agency's reasons for initiating the rule:**

R12-1-101. Changes are made to modernize the wording and an incorporation is updated.

R12-1-102. Incorporations by reference and wording are updated. Definitions for "certifiable cabinet x-ray system" and "certified cabinet x-ray system" are added so that industrial x-ray systems that have been modified to meet safety standards will be treated as if they are certified. The definition of "NORM" is now contrasted with "NARM" in the definition of "NARM". The definition for "nuclear waste" is moved from Article 15, where it was buried in R12-1-1508, to the list of definitions in this Article for ease of reference and consistency reasons. The definition of "Radiation Safety Officer" is modified to include reference to the registrant in response to its use in Article 9. This change will clarify the requirements in Article 9. This change was initiated as part of a recently completed Five-year Review.

R12-1-103. "Sources of radiation" is replaced with "Radioactive material" because 49 CFR only regulates radioactive material. An incorporation is updated.

R12-1-202. The requirement to submit an x-ray facility description is listed in conjunction with the requested facility description already requested on the application forms in Appendix A of this Article. The requirements will continue to be a condition of application acceptability. Also, wording is modernized.

R12-1-418 and R12-1-419. The 1st rule requires that a personnel monitoring device issued to an individual be used only by that individual. This additional requirement is made to insure there is no confusion as to who actually receives a radiation exposure recorded while sharing a personnel monitoring device. The 2nd rule is incorrectly structured making it incompatible with references made to it in other rules emphasizing the need for personnel monitoring. This corrects and clarifies the rule.

R12-1-438. An incorrect rule reference is made. Records of waste disposal shall be maintained in accordance with R12-1-441



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rather than R12-1-407.

R12-1-448. The Nuclear Regulatory Commission is requiring the Agency adopt event reporting requirements involving specified quantities of radioactive material as part of Arizona's agreement to maintain a radiation safety program.

R12-1-506. A requirement in this rule is clarified by replacing the nonspecific use of the word "quantity" with a phrase that specifies the radioactivity of each radioactive source. Additionally, the person performing the required inventory will be required to sign the report of inventory so that recordkeeping can be better monitored by the licensee's management and the Agency. A number of improvements are made in the wording.

R12-1-511. Licensing requirements specific to industrial radiography are placed in Article 5 where all of the radiography requirements are listed. They are a duplication of existing requirements in Article 3 that will be removed at a later date. The remaining requirements in Article 3 will then be general in nature and not specific to any specialized use. Maintaining all of the specific requirements in 1 Article should assist the radiography user in meeting all of the specific radiation safety requirements associated with the practice of radiography. Wording changes are made as necessary to improve understandability.

R12-1-521. Changes are made to correctly reference the radiography licensing requirements that are now located in R12-1-511 and improve wording.

R12-1-523. A reference to R12-1-419 is added to better describe the maintenance of personnel monitoring records.

R12-1-541. Certifiable enclosed radiography machines will be exempted from the requirements in Article 5 because they have been modified to meet the safety standards of the certified enclosed radiography machines.

R12-1-605. Table 1 organization is amended to correct errors made during printing.

R12-1-610. "Intraoral" is added to the Section heading for clarification.

R12-1-614. The accepted mesh size, used to evaluate film-screen contact in the making of mammography x-ray images, is changed to 40 as is currently accepted by the American College of Radiology.

R12-1-901 thru R12-1-912. The majority of revisions are made to the rules contained in Article 9 as a result of the last Five-year Review. Most of the changes are needed as a direct result of changes made to Article 4 and are frequently referenced in this Article. Also grammatical and word changes are made to improve readability. In R12-1-909 the requirement for a flashing warning light in medical facilities is deleted because some medical conditions may be aggravated by it.

Article 11. This Article is repealed because the regulatory authority for mill tailings was returned to the Nuclear Regulatory Commission in 1980.

R12-1-1302. This rule is modified to correct an outdated incorporation by reference and correct 2 rules referenced in Article 4. The definition for Category D17 is deleted; the requirement for a license is unnecessary because waste disposal is addressed in existing Article 3 licensing requirements.

R12-1-1306. Through no fault of the Agency, the "Type A" class for "Category B2" was omitted during the last publication of Article 13. It is added at this time to correct this error. Another change to this rule removes the D17 category which is being removed with the deletion of the definition of D17 from R12-1-1302; the removal of the definition is described above.

R12-1-1502. Terms defined here are moved to Article 1 where a definition list is maintained in R12-1-102. A reference to the list is provided and a word correction is made.

R12-1-1503. This rule is repealed because the exemption in subsection (A) is already addressed in R12-1-103, while the exemption in subsection (C) is being moved to R12-1-103 as well. Subsection (B) is removed as an exemption because specific precautions are addressed in R12-1-1506 and other precautions for receipt of certain packages are specified in R12-1-433. These new requirements must be followed when receiving packages.

R12-1-1504, R12-1-1505, and R12-1-1506. A portion of R12-1-1504(A)(2) is deleted because the exemption granted to a private carrier is, in fact, the same exemption extended to them in subsection (A)(1). In that subsection a private carrier is referred to as a licensee. All 3 rules are modified to correct outdated incorporations by references and improve wording.

R12-1-1507. The exemption in subsection (A) is deleted because the date limiting the exemption has passed. Subsection (B) is modified to clarify quality assurance requirements.

R12-1-1508. The definition of nuclear waste in subsection (A) is moved to the definition list in R12-1-102. An incorporation by reference is updated. Appendix A is deleted because the special form test requirements are already contained in the incorporated reference.

R12-1-1715 thru R12-1-1751. Revisions are made to rules contained in Article 17 as a result of the last Five-year Review. Changes include the revision of references to requirements in Article 4, resulting from recent changes to Article 4; a change of frequency for radioactive material inventory from quarterly to every 6 months, which is the current frequency in the regulatory community; the length of time personnel monitoring records must be maintained, which will now be less lengthy; the requirement to maintain inventory records at field stations is modified to remain consistent with the changes to R12-1-1716; the requirement to have a copy of the current Arizona Radioactive Material License at the temporary job site; and the requirement to notify the Agency before initiating a plan to recover a source lost down-hole. A copy of the radioactive material license shall be maintained at a job site, which will facilitate Agency inspection. Also some changes are made to improve readability.



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The Agency notification of planned retrieval will help insure that proper procedure is used and diminish the chance of the spread of radioactive contamination from a source damaged during retrieval.

7. **A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision of this state:**  
Not applicable.

8. **The summary of the economic, small business and consumer impact:**

Notification of Incidents:

Addition of R12-1-448 to Article 4 is in response to the NRC determining the reporting requirements contained in 10 CFR 20 and equivalent requirements in Article 4 would be cumbersome and difficult to develop and use. The rule will help minimize reports of insignificant events, using a set of activity thresholds for determining when fires, explosions, and contamination events are reportable. The new thresholds, requiring notification at 5 times the lowest annual limit on intake specified in Appendix B of Article 4, will help to minimize unnecessary reporting and minimize the economic impact to all affected parties. There should be little economic impact to all parties involved.

Other Changes and Additions:

Other changes and additions are made to improve clarity, consistency, and understanding of the rules. In Article 5, requirements are added from Article 3 to better organize and portray the requirements. In Article 2, facility requirements are stated in rule that have only been required on the application form in the past. The requirement to notify the Agency of a well logging source stuck down hole in Article 17 may result in some additional costs. However, because this requirement will only affect the licensee during emergency situations, the cost is difficult to estimate. The majority of changes are made as a result of Five-year Reviews, which are an on-going process in keeping the rules and wording of the rules current. The economic impact to all affected parties should be minimal.

9. **A description of the changes between the proposed rules, including supplemental notices, and final rules (if applicable):**

A number of changes are made concerning accepted rule format, understandability, and to correct mistakes made during the rule-making process. The changes are detailed in the Concise Explanatory Statement prepared in association with the described rule-making.

10. **A summary of the principal comments and the agency response to them:**

The only comments received concerning the rule changes were received from the Radiation Regulatory Hearing Board during a public hearing held on February 10, 1997. The types of comments received resulted in the changes summarized in No. 9 above.

11. **Any other matters prescribed by statute that are applicable to the specific agency or to any specific rule or class of rules:**

Not applicable

12. **Incorporations by reference and their location in the rules:**

10 CFR 150	R12-1-101(C)
10 CFR 71	R12-1-102
21 CFR 1010.2	R12-1-102
21 CFR 1020.40	R12-1-102
40 CFR 190 and 191	R12-1-102
10 CFR 71.4	R12-1-102
49 CFR 173.403	R12-1-102
49 CFR 100	
through 199	R12-1-102
10 CFR 71	R12-1-102
49 CFR (many Parts)	R12-1-103(A)
39 CFR 111.1	R12-1-103(A)
10 CFR 61	R12-1-1302(D)(11)
49 CFR 171	
through 189	R12-1-1504(B)
49 CFR 177.848	R12-1-1505(B)
49 CFR 171	
through 189	R12-1-1506(1)
10 CFR 71	R12-1-1507(A)
49 CFR 172.202 and	
172.203(d)	R12-1-1508(B)(2)

13. **Was this rule previously adopted as an emergency rule?**

No.

14. **The full text of the rules follows:**

**TITLE 12. NATURAL RESOURCES**

**CHAPTER 1. RADIATION REGULATORY AGENCY**

**ARTICLE 1. GENERAL PROVISIONS**

Section	
R12-1-101	Scope
R12-1-102	Definitions
R12-1-103	Exemptions

**ARTICLE 2. REGISTRATION AND CERTIFICATION OF IONIZING RADIATION MACHINE FACILITIES, REGISTRATION OF SERVICES, AND LICENSING OF NONIONIZING RADIATION MACHINE FACILITIES**

Section	
R12-1-202	Application Requirements for Registration or Certification of Radiation Machines, Ionizing and Non-ionizing Radiation Machine Facilities; Notification
R12-1-204	Issuance of Notice of Registration

**ARTICLE 4. STANDARDS FOR PROTECTION AGAINST IONIZING RADIATION**

Section	
R12-1-418	Surveys and Monitoring
R12-1-419	Conditions Requiring Individual Monitoring of External and Internal Occupational Dose
R12-1-438	Disposal of Specific Wastes
R12-1-448	Additional Reporting Requirements

**ARTICLE 5. RADIATION SAFETY REQUIREMENTS FOR INDUSTRIAL RADIOGRAPHIC OPERATIONS**

Section	
R12-1-506	Quarterly Inventory
R12-1-511	License Application Requirements for Industrial Radiography
R12-1-521	Requirements for Radiographers and Radiographer's Assistants
R12-1-523	Personnel Monitoring Control
R12-1-541	Enclosed Radiography Using X-ray Machines

**ARTICLE 6. USE OF X-RAYS IN THE HEALING ARTS**

Section	
R12-1-605	General Equipment Requirements
R12-1-610	Dental Intraoral Radiographic Systems
R12-1-614	Mammographic Systems

**ARTICLE 9. RADIATION SAFETY REQUIREMENTS FOR PARTICLE ACCELERATORS**

Section	
R12-1-901	Purpose and Scope
R12-1-902	Registration Requirements
R12-1-903	General Requirements for the Issuance of a Registration for Particle Accelerators
R12-1-907	Shielding and Safety Design Requirements
R12-1-909	Warning Devices
R12-1-912	Ventilation Systems

**ARTICLE 11. RADIATION SAFETY REQUIREMENTS FOR URANIUM AND THORIUM MILL TAILINGS**

Section	
R12-1-1101	Scope
R12-1-1102	Maintenance of piles and ponds at all mills
R12-1-1103	Additional requirements for inactive mills
R12-1-1104	Waiver

**ARTICLE 13. LICENSE AND REGISTRATION FEES**

Section	
R12-1-1302	Types of Licenses and Registrations
R12-1-1306	Schedule of Fees

**ARTICLE 15. TRANSPORTATION**

Section	
R12-1-1502	Definitions
R12-1-1503	Exemptions
R12-1-1504	Intrastate Transportation and Storage of Radioactive Materials
R12-1-1505	Storing of Radioactive Material in Transport
R12-1-1506	Preparation of Radioactive Material for Transport
R12-1-1507	Packaging Quality Assurance
R12-1-1508	Advance Notification of Transport of Nuclear Waste
Appendix A.	Tests for Special Form Radioactive Material

**ARTICLE 17. RADIATION SAFETY REQUIREMENTS FOR WIRELINE SERVICE OPERATIONS AND SUBSURFACE TRACER STUDIES**

Section	
R12-1-1715	Leak Testing of Sealed Sources
R12-1-1716	Quarterly Inventory
R12-1-1721	Training Requirements
R12-1-1723	Personnel Monitoring
R12-1-1742	Documents and Records Required at Field Stations
R12-1-1743	Documents and Records Required at Temporary Job sites
R12-1-1751	Notification of Incidents, Abandonment and Lost Sources

**ARTICLE 1. GENERAL PROVISIONS**

**R12-1-101. Scope**

- A. No change.
- B. ~~This Chapter does not apply to a person to the extent such person is subject to regulation by the Nuclear Regulatory Commission. Nothing in this Chapter shall apply to any person to the extent such person is subject to regulation by the U.S. Nuclear Regulatory Commission.~~
- C. ~~State control Regulation by the state of source material, by-product material, and special nuclear material in quantities not sufficient to form a critical mass is shall be subject to the provisions of the agreement between the state and the U.S. Nuclear Regulatory Commission, signed March 30, 1967, incorporated herein by reference in this rule and on file with the Office of the Secretary of State, and to Part 150 of the Commission's regulations (10 CFR 150), 1996 1993 Edition, published January 1, 1996, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated herein by reference and on file with the Agency and the Office of the Secretary of State. These incorporations by reference contain no future editions or amendments.~~

**R12-1-102 Definitions**

Terms defined in A.R.S. § 30-651 have the same meanings when used in this Chapter. The following terms have the definitions set forth below. Additional definitions used only in a certain Article will be found in that Article.

1. "A<sub>1</sub>" means the maximum activity of special form radioactive material permitted in a Type A package. "A<sub>2</sub>" means the maximum activity of radioactive material,

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other than special form radioactive material, permitted in a Type A package. These values are either listed in 10 CFR 71, Appendix A, Table A-1 Table I, Appendix A, or may be derived in accordance with the procedure prescribed in 10 CFR 71, Appendix A, 19961993 Edition, published January 1, 1996, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated herein by reference and on file with the Agency and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.

2. "Absorbed dose" means the energy imparted by ionizing radiation per unit mass of irradiated material. The units of absorbed dose are the gray (Gy) and the rad.
3. "Accelerator" means any machine capable of accelerating electrons, protons, deuterons, or other charged particles in a vacuum and of discharging the resultant particulate or other radiation into a medium at energies usually in excess of 1 MeV. For purposes of this definition, "particle accelerator" is an equivalent term.
4. "Accelerator produced material" means any material made radioactive by irradiating it in a particle accelerator.
5. "Act" means A.R.S. Title 30, Chapter 4.
6. "Activity" means the rate of disintegration, transformation, or decay of radioactive material. The units of activity are the becquerel (Bq) and the curie (Ci).
7. "Adult" means an individual 18 or more years of age.
8. "Agency", or "ARRA" means the Arizona Radiation Regulatory Agency.
9. "Agreement State" means any state with which the United States Nuclear Regulatory Commission has entered into an effective agreement under Section 274(b) of the Atomic Energy Act of 1954, as amended (73 Stat. 689).
10. "Airborne radioactive material" means any radioactive material dispersed in the air in the form of aerosols, dusts, fumes, mists, vapors, or gases.
11. "Airborne radioactivity area" means a room, enclosure, or area in which airborne radioactive materials, composed wholly or partly of licensed radioactive material, exist in concentrations:
  - a. In excess of the derived air concentrations (DACs) specified in Appendix B, Table I of Article 4 of these rules, or
  - b. That an individual present in the area without respiratory protective equipment could exceed, during the hours an individual is present in a week, an intake of 0.6% of the annual limit on intake (ALI) or 12 DAC-hours.
12. "ALARA" means as low as is reasonably achievable, making every reasonable effort to maintain exposures to radiation as far below the dose limits in these rules as is practical, consistent with the purpose for which the licensed or registered activity is undertaken, taking into account the state of technology, the economics of improvements in relation to state of technology, the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to utilization of nuclear energy and licensed or registered sources of radiation in the public interest.
13. "Analytical x-ray equipment" means equipment used for x-ray diffraction or x-ray-induced fluorescence analysis.
14. "Analytical x-ray system" means a group of components utilizing x-rays to determine the elemental composition or to examine the microstructure of materials.
15. "Background radiation" means radiation from cosmic sources; naturally occurring radioactive materials, including radon, (except as a decay product of source or special nuclear material) less than 10 times the quantities listed in Article 4, Appendix B, Table II Table-3 ; and global fallout as it exists in the environment from the testing of nuclear explosive devices. "Background radiation" does not include sources of radiation from radioactive materials regulated by the Agency.
16. "Becquerel" (Bq) means the International System (SI) unit for activity and is equal to 1 disintegration per second (dps or tps).
17. "Bioassay" means the determination of kinds, quantities, or concentrations, and, in some cases, the locations of radioactive material in the human body, whether by direct measurement, in vivo counting, or by analysis and evaluation of materials excreted or removed from the human body. For purposes of these rules, "radiobioassay" is an equivalent term.
18. "Brachytherapy" means a method of radiation therapy in which an encapsulated source or group of sources is utilized to deliver beta or gamma radiation at a distance of up to a few centimeters, by surface, intracavitary, or interstitial application.
19. "By-product material" means:
  - a. Any radioactive material, except special nuclear material, yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material; and
  - b. The tailings or wastes produced by the extraction or concentration of uranium or thorium from ore processed primarily for its source material content, including discrete surface wastes resulting from uranium or thorium solution extraction processes. Underground ore bodies depleted by these solution extraction operations do not constitute "by-product material" within this definition.
20. "Calendar quarter" means not less than 12 consecutive weeks nor more than 14 consecutive weeks. The 1st calendar quarter of each year shall begin in January and subsequent calendar quarters shall be so arranged such that no day is included in more than 1 calendar quarter and no day in any 1 year is omitted from inclusion within a calendar quarter. A No licensee or registrant shall not change the method observed by him of determining calendar quarters for purposes of this Chapter except at the beginning of a calendar year.
21. "Calibration" means the determination of:
  - a. The response or reading of an instrument relative to a series of known radiation values over the range of the instrument, or
  - b. The strength of a source of radiation relative to a standard.

"Certifiable cabinet x-ray system" means an existing uncertified x-ray system that meets or has been modified to meet the certification requirements specified in 21 CFR 1020.40, 1995 Edition, published April 1, 1995, by the Office of Federal Register, National Archives and Records Administration, incorporated by reference and on file with the Agency and the Office of Secretary of

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State. This incorporation by reference contains no future editions or amendments.

- "Certified cabinet x-ray system" means an x-ray system that has been certified in accordance with 21 CFR 1010.2, as being manufactured and assembled on or after April 10, 1975, in accordance with the provisions of 21 CFR 1020.40, both references 1995 Edition, published April 1, 1995, incorporated by reference and on file with the Agency and the Office of Secretary of State. These incorporations by reference contain no future editions or amendments.
22. "CFR" means Code of Federal Regulations.
23. "Chelating agent" means amine polycarboxylic acids, hydroxycarboxylic acids, gluconic acid, and polycarboxylic acids.
24. "Civil penalty" means the monetary fine which may be imposed on licensees by the Agency, pursuant to A.R.S. § 30-687, for violations of the Act, this Chapter, or license conditions.
25. "Collective dose" means the sum of the individual doses received in a given period of time by a specified population from exposure to a specified source of radiation.
26. "Committed dose equivalent" ( $H_{T,50}$ ) means the dose equivalent to organs or tissues of reference (T) that will be received from an intake of radioactive material by an individual during the 50-year period following the intake.
27. "Committed effective dose equivalent" ( $H_{E,50}$ ) is the sum of the products of the weighting factors applicable to each of the body organs or tissues that are irradiated and the committed dose equivalent to each of these organs or tissues ( $H_{E,50} = \sum w_T H_{T,50}$ ).
28. "Curie" means a unit of quantity of radioactivity. One curie (Ci) is that quantity of radioactive material which decays at the rate of  $3.7E + 10^{10}$  transformations per second (tps).
29. "Current license" or registration means a license or registration issued by the Agency and for which the licensee has paid the license or registration fee for the then current year pursuant to R12-1-1304.
30. "Deep-dose equivalent" ( $H_d$ ), which applies to external whole body exposure, is the dose equivalent at a tissue depth of 1 centimeter ( $1000 \text{ mg/cm}^2$ ).
31. "Depleted uranium" means the source material uranium in which the isotope uranium-235 is less than 0.711 weight percent of the total uranium present. Depleted uranium does not include special nuclear material.
32. "Dose" is a generic term that means absorbed dose, dose equivalent, effective dose equivalent, committed dose equivalent, committed effective dose equivalent, total organ dose equivalent, or total effective dose equivalent. For purposes of these rules, "radiation dose" is an equivalent term.
33. "Dose equivalent ( $H_T$ )" means the product of the absorbed dose in tissue, quality factor, and all other necessary modifying factors at the location of interest. The units of dose equivalent are the sievert (Sv) and rem.
34. "Dose limits" means the permissible upper bounds of radiation doses established in accordance with these rules. For purposes of these rules, "limits" is an equivalent term.
35. "Dosimeter" (see "Individual monitoring devices").
36. "Effective dose equivalent ( $H_E$ )" means the sum of the products of the dose equivalent to each organ or tissue ( $H_T$ ) and the weighting factor ( $w_T$ ) applicable to each of the body organs or tissues that are irradiated ( $H_E = \sum w_T H_T$ ).
37. "Effluent release" means any disposal or release of radioactive material into the ambient atmosphere, soil, or any surface or subsurface body of water.
38. "Embryo/fetus" means the developing human organism from conception until the time of birth.
39. "Enclosed beam x-ray system" means an analytical x-ray system constructed in such a way that access to the interior of the enclosure housing the x-ray source during operation is precluded except through bypassing of interlocks or other safety devices to perform maintenance or servicing.
40. "Enclosed radiography" means industrial radiography conducted by using cabinet radiography or shielded room radiography.
- a. "Cabinet radiography" means industrial radiography conducted by using an x-ray machine in an enclosure not designed for human admittance and which is so shielded that every location on the exterior meets the conditions for an "unrestricted area".
- b. "Shielded room radiography" means industrial radiography conducted using an x-ray machine in an enclosure designed for human admittance and which is so shielded that every location of the exterior meets the conditions for an "unrestricted area".
41. "Entrance or access point" means any opening through which an individual or extremity of an individual could gain access to radiation areas or to licensed radioactive materials. This includes entry or exit portals of sufficient size to permit human entry, irrespective of their intended use.
42. "Explosive material" means any chemical compound, mixture, or device which produces a substantial instantaneous release of gas and heat spontaneously or by contact with sparks or flame.
43. "Exposure" means:
- a. Being subjected to ionizing radiation or radioactive materials.
- b. The quotient of dQ by dm where "dQ" is the absolute value of the total charge of the ions of 1 sign produced in air when all the electrons (negatrons and positrons) liberated by photons in a volume element of air having mass "dm" are completely stopped in air. The special unit of exposure is the roentgen (R).
44. "Exposure rate" means the exposure per unit of time.
45. "External dose" means that portion of the dose equivalent received from any source of radiation outside the body.
46. "Extremity" means hand, elbow, arm below the elbow, foot, knee, and leg below the knee.
47. "Eye dose equivalent" means the external dose equivalent to the lens of the eye at a tissue depth of 0.3 centimeter ( $300 \text{ mg/cm}^2$ ).
48. "Fail-safe characteristics" means a design feature which causes beam port shutters to close, or otherwise prevents emergence of the primary beam, upon the failure of a safety or warning device.

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49. "Field radiography" means industrial radiography, utilizing a portable or mobile x-ray system, which is not conducted in a shielded enclosure.
50. "Field station" means a facility where radioactive sources may be stored or used and from which equipment is dispatched to temporary job sites.
51. "Former U.S. Atomic Energy Commission (AEC) or U.S. Nuclear Regulatory Commission (NRC) licensed facilities" means nuclear reactors, nuclear fuel reprocessing plants, uranium enrichment plants, or critical mass experimental facilities where AEC or NRC licenses have been terminated.
52. "Generally applicable environmental radiation standards" means standards issued by the U.S. Environmental Protection Agency (EPA), 40 CFR 190 and 191, 1995 1992 Edition, published July 1, 1995, 1992, by the Office of the Federal Register, National Archives and Records Administration, incorporated herein by reference and on file with the Agency and the Office of the Secretary of State, under the authority of the Atomic Energy Act of 1954, as amended, that impose limits on radiation exposures or levels, or concentrations or quantities of radioactive material, in the general environment outside the boundaries of locations under the control of persons possessing or using radioactive material. This incorporation by reference contains no future editions or amendments.
53. "Gray" (Gy) means the International System (SI) unit of absorbed dose and is equal to 1 joule per kilogram. One Gray equals 100 rad.
54. "Hazardous waste" means those wastes designated as hazardous in A.R.S. Title 49, § 49-921(5) 49-921(5).
55. "Healing arts" means the practice of medicine, dentistry, osteopathy, podiatry, chiropractic, and veterinary medicine.
56. "Health care institution" means every place, institution, or building which provides facilities for medical services or other health-related services, not including private clinics or offices which do not provide overnight patient care.
57. "High radiation area" means an area, accessible to individuals, in which radiation levels could result in an individual receiving a dose equivalent in excess of 1 mSv (0.1 rem) in 1 hour at 30 centimeters from any source of radiation or from any surface that the radiation penetrates.
58. "Human use" means the internal or external administration of radiation or radioactive materials to human beings.
59. "Impound" means to abate a radiological hazard. Actions which may be taken by the Agency in impounding a source of radiation include seizing the source of radiation, controlling access to an area, and preventing a radiation machine from being utilized.
60. "Individual" means any human being.
61. "Individual monitoring" means the assessment of:
- a. Dose equivalent
    - i. By the use of individual monitoring devices, or
    - ii. By the use of survey data; or
  - b. Committed effective dose equivalent
    - i. By bioassay; or
    - ii. By determination of the time-weighted air concentrations to which an individual has been exposed, that is, DAC-hours. (See the definition of DAC-hours in Article 4).
62. "Individual monitoring devices" means devices designed to be worn by a single individual for the assessment of dose equivalent. For purposes of these rules, "dosimeter", "personnel dosimeter", and "personnel monitoring equipment" are equivalent terms. Examples of individual monitoring devices are film badges, thermoluminescent dosimeters (TLDs), pocket ionization chambers, and personal air sampling devices.
63. "Industrial radiography" means the examination of the macroscopic structure of materials by non-destructive methods utilizing sources of ionizing radiation.
64. "Injection tool" means a device used for controlled sub-surface injection of radioactive tracer material.
65. "Inspection" means an examination or observation by a representative of the Agency, including but not limited to tests, surveys, and monitoring to determine compliance with rules, orders, requirements, and conditions of the License or certificate of registration.
66. "Interlock" means a device arranged or connected such that the occurrence of an event or condition is required before a 2nd event or condition can occur or continue to occur.
67. "Internal dose" means that portion of the dose equivalent received from radioactive material taken into the body.
68. "Irradiate" means to expose to radiation.
69. "Laser" (light amplification by the stimulated emission of radiation) means any device which can produce or amplify electromagnetic radiation with wave lengths in the range of 180 nanometers to 1 millimeter primarily by the process of controlled stimulated emission.
70. "License" means the grant of authority, issued pursuant to Article 3 and ~~or~~ 14 of this Chapter and A.R.S. §§ 30-671, 30-672, and 30-721 et seq., to acquire, possess, transfer, and use sources of radiation. The types of licenses issued by the Agency are described in R12-1-1302.
71. "Licensed material" means radioactive material received, possessed, used, transferred, or disposed of under a general or specific license issued by the Agency.
72. "Licensed practitioner" means a person licensed or otherwise authorized by law to practice medicine, dentistry, osteopathy, chiropractic, podiatry or naturopathy in this state.
73. "Licensee" means any person who is licensed by the Agency under this Chapter to acquire, possess, transfer, or use sources of radiation.
74. "Licensing State" means any state having regulations equivalent to this Chapter relating to, and an effective program for the regulation of, naturally occurring and accelerator-produced radioactive material (NARM).
75. "Limits" (See "Dose limits").
76. "Local components" means those parts of an analytical x-ray system that ~~include areas that are struck by x-rays, including and shall include~~ radiation source housings, port and shutter assemblies, collimator, sample holders, cameras, goniometer, detectors and shielding but ~~shall not including include~~ power supplies, transformers, amplifiers, readout devices, and control panels.
77. "Logging supervisor" means the individual who provides personal supervision of the utilization of sources of radiation at the well site.

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78. "Logging tool" means a device used subsurface to perform well logging.
79. "Lost or missing licensed or registered source of radiation" means licensed or registered source of radiation the location of which is unknown. Included are licensed radioactive material or a registered radiation source that has been shipped but has not reached its planned destination and whose location cannot be readily traced or ascertained in the transportation system.
80. "Low-level waste" means waste material which contains radioactive nuclides in concentrations or quantities which exceed applicable standards for unrestricted release but does not include:
- High-level waste, such as irradiated reactor fuel, liquid waste from reprocessing irradiated reactor fuel, or solids into which any such liquid waste has been converted;
  - Waste material containing transuranic elements with contamination levels greater than 10 nanocuries per gram (370 kilobecquerels per kilogram) of waste material; or
  - The tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content.
81. "Major processor" means a user processing, handling, or manufacturing radioactive material exceeding Type A quantities as unsealed sources or material or exceeding 4 times Type B quantities as sealed sources but does not include nuclear medicine programs, universities, industrial radiographers, or small industrial programs. Type A and B quantities are defined in 10 CFR 71.4, 1996-1993 Edition, published January 1, 1996, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated by reference and on file with the Agency and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.
82. "Medical dose" means a ~~an intentionally delivered~~ radiation dose ~~intentionally delivered~~ to an individual for medical examination, ~~diagnosis~~, or treatment.
83. "Member of the public" means any individual except when that individual is receiving an occupational dose.
84. "MeV Mev" means Mega Electron Volt which equals 1 million volts ( $10^6$  eV).
85. "Mineral logging" means any well logging performed in a borehole drilled for the purpose of exploration for minerals other than oil or gas.
86. "Minor" means an individual less than 18 years of age.
87. "Monitoring" means the measurement of radiation, radioactive material concentrations, surface area activities, or quantities of radioactive material, and the use of the results of these measurements to evaluate potential exposures and doses. For purposes of these rules, "radiation monitoring" and "radiation protection monitoring" are equivalent terms.
88. "Multiplier" means a letter representing a number. The use of a multiplier is based on the code given below:

Multiplier		
Prefix	Symbol	Value
eka	E	$10^{18}$
peta	P	$10^{15}$
tera	T	$10^{12}$

giga	G	$10^9$
mega	M	$10^6$
kilo	k	$10^3$
milli	m	$10^{-3}$
micro	u	$10^{-6}$
nano	n	$10^{-9}$
pico	p	$10^{-12}$
femto	f	$10^{-15}$
atto	a	$10^{-18}$

89. "NARM" means any naturally occurring or accelerator-produced radioactive material. It does not include by-product, source, or special nuclear material. This term should not be confused with "NORM" which is defined as naturally occurring radioactive material.
90. "Normal operating procedures" means the entire set of instructions necessary to accomplish the intended use of the source of radiation. These procedures shall include, but are not limited to, sample insertion and manipulation, equipment alignment, routine maintenance by the licensee, and data recording procedures which are related to radiation safety.
91. "Natural radioactivity" means the radioactivity of naturally occurring radioactive substances.
92. "NRC" means Nuclear Regulatory Commission, the U.S. Nuclear Regulatory Commission, or its duly authorized representatives.  
"Nuclear waste" means any highway route controlled quantity (defined in 49 CFR 173.403, 1995 Edition, published October 1, 1995, incorporated by reference and on file with the Agency and the Secretary of State, containing no future editions or amendments) of source, by-product, or special nuclear material required to be in NRC-approved packaging while transported to, through, or across state boundaries to a disposal site, or to a collection point for transport to a disposal site. Additional requirements associated with transportation of radioactive material can be found in Article 15.
93. "Occupational dose" means the dose received by an individual in a restricted area in the course of employment while engaged in activities licensed or registered by the Agency in which the individual's assigned duties involve exposure to sources of radiation, whether in the possession of the licensee, registrant, or other person. Occupational dose does not include dose received: from background radiation, as a patient from medical practices, from voluntary participation in medical research programs, or as a member of the public.
94. "Open beam system" means an analytical x-ray system in which an individual could place some body part in the primary beam path during normal operation.
95. "Package" means the packaging together with its radioactive contents as presented for transport.
96. "Particle accelerator" (see "Accelerator").
97. "Permanent radiographic installation" means a fixed, shielded installation or structure designed or intended for industrial radiography and in which industrial radiography is regularly performed.
98. "Personnel dosimeter" (see "Individual monitoring devices").
99. "Personnel monitoring equipment" (see "Individual monitoring devices").

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100. "Personal supervision" means supervision in which the supervising individual is physically present at the site where sources of radiation and associated equipment are being used, watching the performance of the supervised individual and in such proximity that immediate assistance can be given if required.
101. "Pharmacist" means an individual licensed by this state to compound and dispense drugs, prescriptions, and poisons.
102. "Physician" means an individual licensed pursuant to A.R.S. Title 32, Chapter 13 or 17.
103. "Primary beam" means radiation which passes through an aperture of the source housing by a direct path from the x-ray tube or a radioactive source located in the radiation source housing.
104. "Public dose" means the dose received by a member of the public from radiation and to radioactive material released by the licensee or registrant, or exposure to sources of radiation used in licensed or registered operations. It does not include an occupational dose, a dose received from background radiation, a dose received as a patient from medical practices, or a dose from voluntary participation in medical research programs.
105. "Pyrophoric liquid" means any liquid that ignites spontaneously in dry or moist air at or below 130° F (54.4° C).
106. "Pyrophoric solid" means any solid material, other than one classed as an explosive, which under normal conditions is liable to cause fires through friction, retained heat from manufacturing or processing, or which can be ignited readily and, when ignited, burns so vigorously and persistently that it creates as to create a serious transportation, handling, or disposal hazard. Included are spontaneously combustible and water-reactive materials.
107. "Qualified expert" means an individual certified in the appropriate field by the American Board of Radiology or the American Board of Health Physics, or having equivalent qualifications which provide the knowledge and training to measure ionizing radiation, to evaluate safety techniques, and to advise regarding radiation protection needs; or an individual certified in Therapeutic Radiological Physics or X-ray and Radium Physics by the American Board of Radiology, or having equivalent qualifications that provide training and experience in the clinical applications of radiation physics to radiation therapy, to calibrate radiation therapy equipment. The detailed requirements for a particular qualified expert are provided in the respective Articles of these rules.
108. "Quality Factor" (Q) means the modifying factor, listed in Tables I and II of this Article, that is used to derive dose equivalent from absorbed dose.
109. "Quarter" means a period of time equal to 1/4 of the year observed by the licensee, approximately 13 consecutive weeks, providing that the beginning of the 1st quarter in a year coincides with the starting date of the year and that no day is omitted or duplicated in consecutive quarters.
110. "Rad" means the special unit of absorbed dose. One rad equals 100 ergs per gram, or 0.01 Gray.
111. "Radiation" means alpha particles, beta particles, gamma rays, x rays, neutrons, high-speed electrons, high-speed protons, and other particles capable of producing ions. For purposes of these rules, this term is synonymous with ionizing radiation. Equivalent terminology for nonionizing radiation is defined in Article 14.
112. "Radiation area" means any area accessible to individuals, in which radiation levels could result in an individual receiving a dose equivalent in excess of 0.05 mSv (0.005 rem) in 1 hour at 30 centimeters from the source of radiation or from any surface that the radiation penetrates.
113. "Radiation dose" (see "Dose").
114. "Radiation safety officer" (RSO) means the individual designated by the licensee or registrant who has the knowledge, authority and responsibility to apply appropriate radiation protection principles to ensure radiation safety and compliance with the Act, this Chapter, any license, or registration conditions.
115. "Radioactive marker" means radioactive material placed subsurface or on a structure intended for subsurface use for the purpose of depth determination or direction orientation.
116. "Radioactive material" means any solid, liquid, or gas which emits radiation spontaneously.
117. "Radioactivity" means emission of electromagnetic energy or particles or both during the transformation of unstable atomic nuclei.
118. "Radiographer" means any individual who performs or personally supervises industrial radiographic operations and who is responsible to the licensee or registrant for assuring compliance with the requirements of this Chapter and all conditions of the license or certificate of registration.
119. "Radiographer's assistant" means any individual who, under the personal supervision of a radiographer, uses sources of radiation, radiographic exposure devices, related handling tools, or survey instruments in industrial radiography.
120. "Radiographic exposure device" means any instrument containing a sealed source therein, in which the sealed source or its shielding thereof may be moved or otherwise changed from a shielded to unshielded position for purposes of making an industrial radiographic exposure.
121. "Registrant" means any person who is registered with the Agency and is legally obligated to register with the Agency pursuant to these rules and the Act.
122. "Registration" is the process by which a person becomes a registrant pursuant to Article 2 of this Chapter. With the exception of registration of persons who install or service radiation machines, the types of registrations issued by the Agency are described in R12-1-1302.
123. "Regulations of the U.S. Department of Transportation" means the federal regulations in 49 CFR 100 through 199, 1995 1992 Edition, published October 1, 1995, 1992, by the Office of the Federal Register, National Archives and Records Administration, incorporated herein by reference and on file with the Agency and the Office of the Secretary of State. ~~This incorporation by reference contains no future editions or amendments.~~
124. "Rem" means the special unit of dose equivalent (see "Dose equivalent"). The dose equivalent in rem is equal to the absorbed dose in rad multiplied by the quality factor (1 rem - 0.01 sievert).
125. "Research and Development" means exploration, experimentation, or the extension of investigative findings and theories of a scientific or technical nature into practical application for experimental and demonstration purposes, including the experimental production and testing of models, devices, equipment, materials, and processes. Research and Development does not include the internal



- or external administration of radiation or radioactive material to human beings.
126. "Restricted area" means any area ~~where the licensee or registrant controls access~~ ~~access which is controlled by the licensee for purposes of protecting protection of individuals from exposure to radiation and radioactive material.~~ A restricted area ~~does shall~~ not include any areas used for residential quarters, although a room or separate rooms in a residential building may be set apart as a restricted area.
127. "Roentgen" (R) means the special unit of exposure and is equal to the quantity of x or gamma radiation which causes ionization in air equal to 258 microcoulomb per kilogram (see "Exposure").
128. "Safety system" means any device, program, or administrative control designed to ensure radiation safety.
129. "Sealed source" means radioactive material that is permanently bonded or fixed in a capsule or matrix designed to prevent release and dispersal of the radioactive material under the most severe conditions which are likely to be encountered in normal use and handling.
130. "Shallow dose equivalent" ( $H_S$ ), which applies to the external exposure of the skin or an extremity, means the dose equivalent at a tissue depth of 0.007 centimeter ( $7 \text{ mg/cm}^2$ ) averaged over an area of 1 square centimeter.
131. "Shielded position" means the location within a radiographic exposure device or storage container which, by manufacturer's design, is the proper location for storage of the sealed source.
132. "Sievert" means the SI unit of dose equivalent (see "Dose equivalent"). The dose equivalent in sievert is equal to the absorbed dose in gray multiplied by the quality factor ( $1 \text{ Sv} = 100 \text{ rem}$ ).
133. "Site boundary" means that line beyond which the land or property is not owned, leased, or otherwise controlled by the licensee or registrant.
134. "Source changer" means a device designed and used for replacement of sealed sources in radiographic exposure devices, including those also used for transporting and storage of sealed sources.
135. "Source holder" means a housing or assembly into which a radioactive source is placed for the purpose of facilitating the handling and use of the source in well-logging operations.
136. "Source material" means:
- Uranium or thorium, or any combination of ~~uranium or thorium~~ thereof, in any physical or chemical form; or
  - Ores that contain by weight 1/20 of 1% (0.05%) or more of uranium, thorium, or any combination of uranium and thorium.
- Source material does not include special nuclear material.
137. "Source material milling" means any activity that results in the production of by-product material as defined by the 2nd paragraph under the definition of "By-product material".
138. "Source of radiation" means any radioactive material or any device or equipment emitting, or capable of producing, radiation.
139. "Special form radioactive material" means radioactive material that satisfies ~~all of~~ the following conditions:
- It is either a single solid piece or is contained in a sealed capsule that can be opened only by destroying the capsule;
  - The piece or capsule has at least 1 dimension not less than 5 millimeters (0.2 inch); and
  - It satisfies the test requirements specified in 10 CFR 71, 1996 1993 Edition, published January 1, ~~1996~~, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated herein by reference in this rule and on file with the Agency and the Office of the Secretary of State. ~~This incorporation by reference contains no future editions or amendments.~~ A special form encapsulation designed in accordance with the U.S. Nuclear Regulatory Commission requirements in effect on June 30, 1983, and constructed prior to July 1, 1985, may continue to be used. A special form encapsulation constructed after June 30, 1985, shall meet requirements of this definition applicable at the time of its construction.
140. "Special nuclear material in quantities not sufficient to form a critical mass" means Uranium enriched in the isotope U-235 in quantities not exceeding 350 grams of contained U-235; Uranium-233 in quantities not exceeding 200 grams; Plutonium in quantities not exceeding 200 grams; or any combination of them in accordance with the following formula: for each kind of special nuclear material, determine the ratio between the quantity of that special nuclear material and the quantity specified above for the same kind of special nuclear material. The sum of such ratios for all of the kinds of special nuclear material in combination shall not exceed 1. For example, the following quantities in combination would not exceed the limitation and are within the formula:
- $$\frac{X \text{ gms U-235}}{350} + \frac{Y \text{ gms U-233}}{200} + \frac{Z \text{ gms Pu}}{200} \leq 1$$
141. "Storage area" means any location, facility, or vehicle which is used to store, transport, or secure a radiographic exposure device, storage container, sealed source, or other source of radiation when it is not in use ~~is use and which area is locked or has a physical barrier to prevent accidental exposure, tampering with or unauthorized removal of the device, container or source.~~
142. "Storage container" means a device in which sealed sources are transported or stored.
143. "Subsurface tracer study" means the release of a substance tagged with radioactive material for the purpose of tracing the movement or position of the tagged substance in the well-bore or adjacent formation.
144. "Survey" means an evaluation of the production, use, release, disposal, or presence of sources of radiation or any combination thereof under a specific set of conditions to determine actual or potential radiation hazards. Such ~~evaluations~~ evaluation shall include, but ~~are~~ not be limited to, tests, physical examination, and measurements of levels of radiation or concentration of radioactive material present.
- "TEDE" means Total Effective Dose Equivalent, the sum of the deep-dose equivalent for external exposures and the committed effective dose equivalent for internal exposures.
145. "Teletherapy Teletherapy" means therapeutic irradiation in which the source of radiation is at a distance from the body.

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146. "Temporary job site" means any location where sources of radiation are used other than the specified locations listed on a license document.
147. "Test" means the process of verifying compliance with an applicable rule, order or license condition.
148. "These rules" means all Articles of 12 A.A.C. 1.
149. "TEDE" means ~~Total Effective Dose Equivalent, the sum of the deep-dose equivalent for external exposures and the committed effective dose equivalent for internal exposures.~~
150. "TODE" means Total Organ Dose Equivalent, the sum of the deep-dose equivalent and the committed dose equivalent to the organ receiving the highest dose as described in ~~R12-1-419(C)(1)(f)~~ ~~R12-1-419(C)(1)(d)~~ of these rules.
151. "Unrefined and unprocessed ore" means ore in its natural form prior to any processing, such as grinding, roasting, beneficiating, or refining.
152. "Unrestricted area" (~~uncontrolled area~~) means any area access to which is not controlled by the licensee for purposes of protection of individuals from exposure to radiation and radioactive material. Any area used for residential quarters is ~~shall be~~ an unrestricted area.
153. "U.S. Department of Energy" means the Department of Energy established by Public Law 95-91, August 4, 1977, 91 Stat. 565, 42 U.S.C. 7101 et seq., to the extent that the Department exercises functions formerly vested in the U.S. Atomic Energy Commission, its Chairman, members, officers, and components; and transferred to the U.S. Energy Research and Development Administration and to the administrator of that agency under thereof pursuant to Sections 104(b), (c), and (d) of the Energy Reorganization Act of 1974 (Public Law 93-438, October 11, 1974, 88 Stat. 1233 at 1237, 42 U.S.C. 5814, effective January 19, 1975) and retransferred to the Secretary of Energy under pursuant to Section 301(a) of the Department of Energy Organization Act (Public Law 95-91, August 4, 1977, 91 Stat. 565 at 577-578, 42 U.S.C. 7151, effective October 1, 1977).
154. "Waste" (see "Low-level waste").
155. "Waste handling licensees" means persons licensed to receive and store radioactive wastes prior to disposal and persons licensed to dispose of radioactive waste.
156. "Week" means 7 consecutive days starting on Sunday.
157. "Well-bore" means a drilled hole in which wireline service operations and subsurface tracer studies are performed.
158. "Well-logging" means the lowering and raising of measuring devices or tools which may contain sources of radiation into well-bores or cavities for the purpose of obtaining information about the well and adjacent formations.
159. "Whole body" means, for purposes of external exposure, head, trunk including male gonads, arms above the elbow, or legs above the knee.
160. "Wireline" means an armored cable containing 1 or more electrical conductors which is used to lower and raise logging tools in the well-bore.
161. "Wireline service operation" means any evaluation or mechanical service which is performed in the well-bore using devices on a wireline.
162. "Worker" means any individual engaged in work under a license issued by the Agency and controlled by employment or contract with a licensee.
163. "WL" means working level, any combination of short-lived radon daughters in 1 liter of air that will result in the ultimate emission of  $1.3E + 5$  MeV of potential alpha particle energy. The short-lived radon daughters are -- for radon-222: polonium-218, lead-214, bismuth-214, and polonium-214; and for radon-220: polonium-216, lead-212, bismuth-212, and polonium-212.
164. "WLM" means working level month, an exposure to 1 working level for 170 hours-- (2,000 working hours per year divided by 12 months per year is approximately equal to 170 hours per month).
165. "Year" means the period of time beginning in January used to determine compliance with the provisions of these rules. The licensee or registrant may change the starting date of the year used to determine compliance by the licensee or registrant provided that the change is made at the beginning of the year and that no day is omitted or duplicated in consecutive years.

**R12-1-103 Exemptions**

- A. Common and contract carriers, freight forwarders, and warehousemen who are subject to 49 CFR 107.103, 107.109, 107.111, 107.113, 171.2, 171.3, 172.200, 173.1, 173.3, 173.4, 173.401, 174.7, 175.3, 175.5, 175.10, 176.3, 176.5, 176.11, 176.24, 176.27, and 177.801, ~~1995 (1992 Edition, published October 1, 1995, July 1, 1992), of the U.S. Department of Transportation, or 39 CFR 111.1 of the U.S. Postal Service, 1995 (1993 Edition, published January 1, 1995, July 1, 1993) both published by the Office of the Federal Register, National Archives and Records Administration, incorporated herein by reference and on file with the Agency and the Office of the Secretary of State, are exempt from this Chapter. In addition, they are exempt from this Chapter to the extent that they transport or store radioactive material for periods of less than 72 hours, sources of radiation in the regular course of their carriage for another or storage incident thereto. Private carriers who are subject to the regulations of the U.S. Department of Transportation are exempt from this Chapter to the extent that they transport radioactive material sources of radiation. Common, contract, and private carriers who are not subject to the regulations of the U.S. Department of Transportation or the U.S. Postal Service are subject to this Chapter. The above incorporation by reference contains no future editions or amendments.~~
- B. Any U.S. Department of Energy contractor or subcontractor and any U.S. Nuclear Regulatory Commission contractor or subcontractor of the following categories operating within this state is exempt from this Chapter to the extent that such contractor or subcontractor under the his contract receives, possesses, uses, transfers, or acquires sources of radiation:
1. No change.
  2. No change.
  3. No change.
  4. No change.
    - a. No change.
    - b. No change.
- C. Any licensee who delivers to a carrier for transport any package which contains radioactive material having a specific activity of 74 kBq/kg (2 nanocuries per gram) or less, is exempt from the provisions of this Chapter with respect to that package.

**ARTICLE 2. REGISTRATION AND CERTIFICATION OF  
IONIZING RADIATION MACHINE FACILITIES,  
REGISTRATION OF SERVICES, AND LICENSING OF  
NONIONIZING RADIATION MACHINE FACILITIES**

**R12-1-202. Application Requirements for Registration or  
Certification of Radiation Machines, Ionizing and Nonionizing  
Radiation Machine Facilities; Notification**

- A. ~~A person shall not~~ No person shall receive, possess, use, or transfer a radiation machine except as authorized pursuant to this Article.
- B. The owner or persons having possession of any nonexempt radiation machine shall apply for registration with the Agency within 90 days following the effective date of this Article. Subsequent applications for registration shall be submitted within 30 days after acquisition of a nonexempt radiation machine. The application shall be on the form or forms as prescribed in Appendix A to this Article article.
- C. No change.
- D. In addition to the application form or forms, the applicant shall remit the appropriate registration fee, pursuant to Article 13, and such other information as may be required to comply with R12-1-208.
- E. With the application forms for registration of radiation machines, except dental and mammography facilities, the applicant shall provide a scale drawing of the room in which a stationary x-ray system is located. The drawing shall denote the type of materials and the thickness (or lead equivalence) of each barrier of the room (walls, ceilings, floors, doors, windows). The drawing shall also denote the type and frequency of occupancy in adjacent areas including those above and below the x-ray room of concern (e.g., hallways, offices, parking lots, and toilets). Estimates of workload shall also be provided with the drawing.

**R12-1-204 Issuance of Notice of Registration**

- A. No change.
- B. All radiation machines located ~~on~~ at the same facility may be registered under using 1 Notice of Registration.

**ARTICLE 4. STANDARDS FOR PROTECTION AGAINST  
IONIZING RADIATION**

**R12-1-418 Surveys and Monitoring**

- A. No change.
1. No change.
2. No change.
- a. No change.
- b. No change.
- c. No change.
- B. No change.
- C. No change.
1. No change.
2. No change.
- D. The licensee or registrant shall ensure that adequate precautions are taken to prevent a deceptive exposure of an individual monitoring device and that personnel monitoring devices are issued to, and used by only the individual to whom the monitoring device has been 1st issued during any reporting period.
- E. No change.
1. No change.
2. No change.
- a. No change.
- b. No change.
- c. No change.
- d. No change.

**R12-1-419. Conditions Requiring Individual Monitoring of  
External and Internal Occupational Dose**

- A. Each licensee or registrant shall monitor exposures from sources of radiation at levels sufficient to demonstrate compliance with the occupational dose limits of this Article. As a minimum each licensee or registrant shall:
1. Monitor occupational exposure to radiation and shall supply and require the use of individual monitoring devices by:
- a. Adults likely to receive, in 1 year from sources external to the body, a dose in excess of 10% of the limits in R12-1-408(A);
- b. Minors and declared pregnant women likely to receive, in 1 year from sources external to the body, a dose in excess of 10% of any of the applicable limits in R12-1-414 or R12-1-415;
- c. Individuals entering a high or very high radiation area; and
- d. Individuals working with medical fluoroscopic equipment.
- i. An individual monitoring device used for the dose to an embryo/fetus of a declared pregnant woman, pursuant to R12-1-408(A), shall be located under the protective apron at the waist. A qualified expert shall be consulted to determine the dose to the embryo/fetus for the rare occasion in which this individual monitoring device has a monthly reported dose equivalent value in excess of 0.5 mSv (50 mrem). For purposes of these regulations, the value to be used for determining the dose to an embryo/fetus pursuant to R12-1-41 (C)(1), for occupational exposure to radiation from medical fluoroscopic equipment shall be the value reported by the individual monitoring device worn at the waist underneath the protective apron which has been corrected for the particular individual and her work environment by a qualified expert.
- ii. An individual monitoring device used for eye dose equivalent shall be located at the neck, or an unshielded location closer to the eye, outside the protective apron.
- iii. When only 1 individual monitoring device is used to determine the effective dose equivalent for external radiation pursuant to R12-1-408(C)(2), it shall be located at the neck outside the protective apron. When a 2nd individual monitoring device is used, for the same purpose, it shall be located under the protective apron at the waist. (Note: The second individual monitoring device is required for a declared pregnant woman.).
- 2.B. As a minimum, each licensee or registrant shall monitor, to determine compliance with R12-1-411, the occupational intake of radioactive material by and assess the committed effective dose equivalent to:
- a.1. Adults likely to receive, in 1 year, an intake in excess of 10% of the applicable ALI in Table I, Columns 1 and 2, of Appendix B; and
- b.2. Minors and declared pregnant women likely to receive, in 1 year, a committed effective dose equivalent in excess of 0.5 mSv (0.05 rem).
- 3.C. Records.
- a.1. Each licensee or registrant shall maintain records of doses received by all individuals for whom monitoring is

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required pursuant to this Section, and records of doses received during planned special exposures, accidents, and emergency conditions. Assessments of dose equivalent and records made using units in effect before January 1, 1994, need not be changed. These records shall include, when applicable:

- i.a. The deep dose equivalent to the whole body, eye dose equivalent, shallow dose equivalent to the skin, and shallow dose equivalent to the extremities;
  - ii.b. The estimated intake of radionuclides, see R12-1-409;
  - iii.c. The committed effective dose equivalent assigned to the intake of radionuclides;
  - iv.d. The specific information used to calculate the committed effective dose equivalent pursuant to R12-1-411(C);
  - v.e. The total effective dose equivalent when required by R12-1-409; and
  - vi.f. The total of the deep dose equivalent and the committed dose to the organ receiving the highest total dose.
- b.2. The licensee or registrant shall make entries of the records specified in Paragraph C, 1, subsection (C)(1) above, at intervals not to exceed 1 year.
  - c.3. The licensee or registrant shall maintain the records specified in Paragraph C, 1, subsection (C)(1) above on Agency Form Z (available from the Agency), in accordance with the instructions for Agency Form Z, or in clear and legible records containing all the information required by this subsection.
  - d.4. The licensee or registrant shall maintain the records of dose to an embryo/fetus with the records of dose to the declared pregnant woman. The declaration of pregnancy, including the estimated date of conception, shall also be kept on file but may be maintained separately from the dose records.
  - e.5. The licensee or registrant shall retain each required form or record for 3 years after the Agency terminates each pertinent license or registration requiring the record.

**R12-1-438. Disposal of Specific Wastes**

- A. No change.
  1. No change.
  2. No change.
- B. No change.
- C. Records. The licensee shall maintain records in accordance with R12-1-441 R12-1-407.

**R12-1-448. Additional Reporting Requirements**

- A. Each licensee shall notify the Agency immediately, not later than 4 hours after the discovery of an event, and take immediate protective actions necessary to avoid exposures to radiation or radioactive materials that could exceed the limits specified in this Chapter or releases of licensed material that could exceed the limits specified in this Chapter. For purposes of this Section, event means a radiation accident involving a fire, explosion, gas release, or similar occurrence.
- B. Each licensee shall notify the Agency within 24 hours after the discovery of any of the following events involving licensed material:
  1. A contamination event that:
    - a. Requires access to the contaminated area, by workers or the public, being restricted for more than 24 hours by the imposition of additional radiological controls to prohibit entry into the area; and

- b. Involves a quantity of radioactive material greater than 5 times the lowest annual limit on intake specified in Appendix B of this Article; and
  - c. Results in access to the contaminated area being restricted for a reason other than to allow radionuclides with a half-life of less than 24 hours to decay prior to decontamination.
2. An event in which equipment is disabled or fails to function as designed when:
    - a. The equipment is part of a system designed to prevent releases exceeding the limits specified in this Chapter, to prevent exposures to radiation and radioactive materials exceeding limits specified in this Chapter, or to mitigate the consequences of an accident; and
    - b. The equipment performs a safety function; and
    - c. No redundant equipment is available and operable to perform the required safety function.
  3. An event that requires urgent medical treatment of an individual with radioactive contamination on the individual's clothing or body.
  4. A fire or explosion damaging any licensed material or any device, container, or equipment containing licensed material when:
    - a. The quantity of material involved is greater than 5 times the lowest annual limit on intake specified in Appendix B of this Article; and
    - b. The damage affects the integrity of the licensed material or its container.
- C. Each licensee shall make reports required by subsections (A) and (B) above by telephone to the Agency. To the extent that the information is available at the time of notification, the information provided in these reports shall include:
1. The callers's name and call back telephone number;
  2. A description of the event, including date and time;
  3. The exact location of the event;
  4. The isotopes, quantities, and chemical and physical form of the licensed material involved; and
  5. Any personnel radiation exposure data available.
- D. Each licensee who makes a report required by subsection (A) or (B) above shall submit a written follow-up report within 30 days of the initial report. Written reports prepared pursuant to other rules may be submitted to fulfill this requirement if the reports contain all of the required information in this Section. The licensee shall send the written report to the Agency. The report shall include the following:
1. A description of the event, including the probable cause and the manufacturer and model number (if applicable) of any equipment that failed or malfunctioned;
  2. The exact location of the event;
  3. The isotopes, quantities, and chemical and physical form of the licensed material involved;
  4. Date and time of the event;
  5. Corrective actions taken or planned and the results of any evaluations or assessments; and
  6. The extent of exposure of individuals to radiation or to radioactive materials without identification of individuals by name.

**ARTICLE 5. RADIATION SAFETY REQUIREMENTS FOR INDUSTRIAL RADIOGRAPHIC OPERATIONS**

**R12-1-506. Quarterly Inventory**

Each licensee or registrant shall conduct a quarterly physical inventory to account for all sources of radiation received or possessed. The records of the inventories shall be retained for 3 years from the date of the inventory and shall show for each source the associated

radioactivity, the include the quantities kind of radioactive material, the number and models of x-ray machines, if applicable, the location of all sources of radiation, and the date of the inventory, and the signature of the individual performing the inventory.

**R12-1-511 License Application Requirements for Industrial Radiography**

In addition to the licensing requirements set forth in R12-1-309, a specific license or registration for industrial radiography will be issued only if:

1. The applicant provides the instruction specified in R12-1-521 for radiographers and assistant radiographers and submits to the Agency a schedule or description of the training program which specifies the:
  - a. Initial training;
  - b. Periodic training;
  - c. On-the-job training; and
  - d. Means of testing to be used by the licensee or registrant to determine a radiographer's or assistant radiographer's knowledge and understanding of and ability to comply with the Agency's rules and licensing requirements, and the operating and emergency procedures of the applicant.
2. The applicant has established and submits to the Agency written operating and emergency procedures to fulfill the requirements of this Chapter.
3. The applicant will have an internal inspection system adequate to assure that Agency rules, Agency license provisions, and the applicant's operating and emergency procedures are followed by radiographers and radiographer's assistants. The inspection system shall include the performance of internal inspections at intervals not to exceed 3 months and the retention of records of such inspections for 2 years;
4. The applicant submits to the Agency a description of the overall organizational structure of the industrial radiography program, including specified delegations of authority and the responsibility for operation of the program;
5. The sealed source radiographer applicant who desires to conduct leak tests has established procedures to be followed in leak testing sealed sources for possible leakage and contamination and submits to the Agency a description of such procedures including:
  - a. Instrumentation to be used;
  - b. Method of performing tests, for example, points on equipment to be smeared and method of taking smear; and
  - c. Pertinent experience of the person who will perform the test; and
6. The applicant complies with appropriate provisions of this Article and Article 3.

**R12-1-521 Requirements for Radiographers and Radiographer's Assistants**

- A. The licensee or registrant shall not permit any individual to act as a radiographer until such individual:
1. No change.
    - a. No change.
      - i. No change.
      - ii. No change.
      - iii. No change.
        - (1) No change.
        - (2) No change.
      - iv. No change.
      - v. No change.
        - (1) No change.
        - (2) No change.

- (3) No change.
- b. No change.
  - i. No change.
    - (1) No change.
    - (2) No change.
    - (3) No change.
  - ii. No change.
  - iii. No change.
    - (1) No change.
    - (2) No change.
    - (3) No change.

- c. No change.
  - i. No change.
  - ii. No change.
  - iii. No change.
  - iv. No change.
- d. No change.
- e. No change.
- f. No change.

2. Has received copies of this Article, and Articles 4 and 10, the license or certificate of registration, and the licensee's or registrant's operating and emergency procedures; and
3. No changes.
4. Has demonstrated understanding of the requirements in this subsection by successful completion of a written test, approved by the Agency in accordance with R12-1-511 R12-1-310.F.1., with a score of 70% or better, and a field examination with a score of 100% on the subjects covered.

B. The licensee or registrant shall not permit any individual to act as a radiographer's assistant until the such individual:

1. No change.
2. Has demonstrated competence to use under the personal supervision of the radiographer the sources of radiation, related handling tools, and radiation survey instruments which will be employed in the his assignment; and
3. Has demonstrated understanding of the requirements in this subsection by successful completion of a written or oral test, approved by the Agency in accordance with R12-1-511 R12-1-310.F.1., with a score of 70% or better, and a field examination with a score of 100% on the subjects covered.

C. No change.

D. No change.

1. No change.
2. No change.
3. No change.

**R12-1-523 Personnel Monitoring Control**

A. No change.

B. No change

1. Pocket dosimeters shall meet the criteria in American National Standards Publication N13.5-1972, "Performance Specifications For Direct Reading and Indirect Reading Pocket Dosimeters for X- and Gamma Radiation," 1972 Edition, published December 9, 1971, by the American National Standards Institute, incorporated herein by reference and on file with the Agency and the Office of the Secretary of State; and shall have a range of 0 to 51.6 microcoulomb/kg (200 milliroentgen). This incorporation by reference contains no future editions or amendments.
2. No change.
3. No change.
  - a. No change
  - b. No change.
4. No change.

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- |   |          |     |     |
|---|----------|-----|-----|
| 5. No change.   |          | 40  | 0.4 |
| 6. No change.   |          | 50  | 0.5 |
| 7. No change.   | 51 to 70 | 51  | 1.2 |
| C. Film badges and TLDs:  |          | 60  | 1.3 |
| 1. No change  |          | 70  | 1.5 |
| 2. No change  | Above 70 | 71  | 2.1 |
| 3. No change  |          | 80  | 2.3 |
| 4. Records of film badge or TLD personnel monitoring shall be kept until disposal is authorized by the Agency, maintained according to R12-1-419. |          | 90  | 2.5 |
|   |          | 100 | 2.7 |
|   |          | 110 | 3.0 |
| D. No change.   |          | 120 | 3.2 |
| 1. No change.   |          | 130 | 3.5 |
| 2. No change.   |          | 140 | 3.8 |
| 3. No change.   |          | 150 | 4.1 |
| 4. No change.   |          |     |     |
| 5. No change.   |          |     |     |

Table I

**R12-1-541. Enclosed Radiography Using X-ray Machines**

A. ~~Certified and certifiable Cabinet cabinet x-ray systems, as defined in Article 1, certified as manufactured in conformance with 21 CFR 1020.40, revised as of April 1, 1988, incorporated herein by reference and on file in the Office of the Secretary of State, are exempt from other the requirements of Article 5, provided the following conditions are met.~~

1. The registrant shall make, or cause to be made, an evaluation of each certified and certifiable cabinet x-ray system, at intervals not to exceed 12 months, to determine conformance with 21 CFR 1020.40 the standards for certified and certifiable cabinet x-ray systems defined in Article 1. Records of such evaluations shall be retained until the Agency authorizes their disposal for 3 years from the date of their creation; and
2. No change.

B. ~~Uncertified cabinet Cabinet x-ray systems not exempted in subsection (A) above shall comply with all other applicable provisions of this Article and the following special requirements:~~

1. No change
2. No change.
3. No change
4. No change
5. No change

C. No change.

1. No change.
2. No change.
3. No change.
4. No change.
5. No change.
6. No change.
7. No change.
8. No change.
9. No change.
10. No change.

**ARTICLE 6. USE OF X-RAYS IN THE HEALING ARTS**

**R12-1-605. General Equipment Requirements**

- A. No change
- B. No change
- C. No change
  1. No change.

Table I

Design operating range (kilovolts peak)	Measured potential (Kilovolts peak)	Half-value layer (Milli- meters of aluminum)
Below 51	30	0.3

Design operating range  
(kilovolts peak)

Below 51

51 to 70

Above 70

Measured potential (Kilovolts peak)	Half-value layer (Milli- meters of aluminum)
30	0.3
50	0.5
51	1.2
60	1.3
70	1.5
71	2.1
80	2.3
90	2.5
100	2.7
110	3.0
120	3.2
130	3.5
140	3.8
150	4.1

2. No change
3. No change.
4. No change.
5. No change.

D. No change

E. No change

F. No change

G. No change

**R12-1-610. Dental Intraoral Radiographic Systems**

- A. No change.
  1. No change
  2. No change.
  3. No change.
  4. No change.
  5. No change.
  6. No change.
  7. No change.
  8. No change.
    - a. No change.
    - b. No change.

B. No change.

1. No change.
2. No change.
3. No change.
4. No change.
5. No change.

C. No change.

1. No change.
2. No change.
3. No change.
4. No change.

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5. No change.

**R12-1-614 Mammographic Systems**

**A. Equipment**

1. No change.
2. No change.
3. No change.
4. No change.
5. No change.
6. No change.
7. No change.
  - a. No change.
  - b. No change.
8. No change.
  - a. No change.
  - b. No change.
9. No change.
10. No change.
11. No change.
12. No change.
13. No change.
14. Cassettes shall not be used for mammography if 1 or more areas of greater than 1 square centimeter or 2 or more areas of less than 1 square centimeter of poor screen-film contact are seen when tested using a 40 30-40 mesh screen test;
15. No change.
  - a. No change.
  - b. No change.
16. No change.
17. No change.

**B. No change.**

1. No change.
2. No change.

**ARTICLE 9. RADIATION SAFETY REQUIREMENTS FOR PARTICLE ACCELERATORS**

**R12-1-901. Purpose and Scope**

- A.** This Article part establishes procedures and requirements for the registration and the use of particle accelerators.
- B.** In addition to the requirements of this Article, all registrants are subject to the requirements of Articles 1, 2, 4, and 10. Registrants engaged in industrial radiographic operations are subject to the requirements of Article 5, and registrants engaged in the healing arts are subject to the requirements of Article 6 of these rules Regulations. Registrants engaged in the use or production of radioactive material are subject to the requirements of Article 3.

**R12-1-902. Registration Requirements**

A No-person shall not receive, possess, use, transfer, or acquire a particle accelerator except as authorized in a registration issued pursuant to these rules Regulations or as otherwise provided for in these rules Regulations. The general procedures for registration of particle accelerator facilities are included in Article 2 of these rules Regulations.

**R12-1-903. General Requirements for the Issuance of a Registration for Particle Accelerators**

In addition to the requirements of Article 2, a registration application for use of a particle accelerator will be approved only if the Agency determines that:

1. The applicant is qualified by reason of training and experience to use the accelerator in question for the purpose requested in accordance with this Article, Article 4, and Articles 4 and Article 10 of these rules Regulations in

such a manner as to minimize danger to public health and safety or property;

2. No change.
3. The issuance of the registration will not be inimical to the health and safety of the public, and the applicant satisfies any applicable special requirement in R12-1-904 of this Regulation these rules;
4. No change.
5. The applicant's applicant and/or his staff has substantial experience in the use of particle accelerators for the intended uses;
6. If the applicant is a medical institution having an existing radiation safety committee, the committee shall be responsible for approving applicant has established a radiation safety committee to approve, in advance, proposals for uses of particle accelerators, whenever deemed necessary by the Agency (For purposes of this rule, a medical institution is defined as any organization dedicated to providing medical and surgical care for the sick on an overnight basis); and
7. No change.

**R12-1-907. Shielding and Safety Design Requirements**

- A.** No change.
- B.** The registrant shall provide each Each particle accelerator installation shall be provided with the such primary and and/or secondary barriers that as are necessary to assure compliance with R12-1-408 and R12-1-416 Sections R12-1-402 and R12-1-406.

**R12-1-909 Warning Devices**

- A.** All areas, except those in medical facilities, locations designated as high radiation areas, and entrances to the areas such locations shall be equipped with easily observable flashing or rotating warning light system that operates lights that operate when, and only when, radiation is being produced. Medical facilities shall be equipped with a continuously operating warning light system.
- B.** Except in facilities designed for human exposure, each high radiation area shall have an audible warning device which shall be activated for 15 seconds prior to the possible creation of the such high radiation area. The Such warning device shall be clearly discernible in all high radiation areas and all radiation areas.
- C.** Barriers, temporary or otherwise, and pathways leading to high radiation areas shall be identified in accordance with R12-1-428 and R12-1-429 Section R12-1-411.

**R12-1-912. Ventilation Systems**

- A.** A registrant or licensee shall provide the means Means shall be provided to ensure that personnel entering any area where airborne radioactivity may be produced will not be exposed to airborne radioactive material in excess of those limits specified in Article 4, Appendix A, Table I of this Chapter Appendix B, Table II of this Chapter.
- B.** A registrant or licensee as required by R12-1-407 shall not vent, release, or otherwise discharge airborne radioactive material to an uncontrolled area which exceed the limits specified in Article 4, Appendix A, Table II of this Chapter Appendix B, Table II of this Chapter, except as authorized pursuant to R12-1-435 Section R12-1-417 or Subsection R12-1-407 B, of this Chapter. For purposes of this Section, concentrations may be averaged over a period not greater than 1 year. Every reasonable effort should be made to maintain releases of radioactive material to uncontrolled areas as far below the limits in Appendix B, Table II of this Chapter, as practicable.



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**ARTICLE 11. RADIATION SAFETY REQUIREMENTS FOR  
URANIUM AND THORIUM MILL TAILINGS**

**R12-1-1101. Scope**

The regulations in this Article establish requirements for uranium and thorium mill tailing piles and ponds associated with active mills, inactive mills, and closed or abandoned mills. The provisions of this Article are in addition to, and not in substitution for, other applicable provisions of:

1. These regulations, and
2. Any specific license issued to a mill operator, pursuant to Section R12-1-312 of these regulations, subsequent to June 4, 1971.

**R12-1-1102. Maintenance of piles and ponds at all mills**

- A. If pile edges are adjacent to a river, creek, gulch or other water course that might reasonably be expected to erode the edges during periods of high water, the exposed slopes shall be stabilized and the edges shall be diked and riprapped sufficiently to prevent erosion of the pile.
- B. Drainage ditches shall be provided around the pile edges sufficient to prevent surface runoff water from neighboring land from reaching and eroding the pile.
- C. Access to the pile and pond areas shall be controlled by the operator or owner and property posted.
- D. The pile shall be maintained in such a manner that excessive erosion of, or environmental hazard from radioactive materials does not occur.
- E. The owner of the tailing pile site shall give the AAEC written notice thirty (30) days in advance of any contemplated transfer of right, title of interest in the site by deed, lease, or other conveyance. The written notice shall contain the name and address of the proposed purchaser of transferee. Prior written approval of the AAEC shall be obtained before the surface area of the land shall be put to use, and it shall have been determined that the radiation dosage to the public resulting from the proposed use does not exceed 0.5 rem per year.
- F. With the exception of reprocessing at the site, prior written approval of the AAEC must be obtained before any tailings material is removed from any active or inactive mill site or tailings site.
- G. The AAEC may waive or modify individual requirements in regard to stabilization or utilization of tailings material if it can be shown that they are unnecessary or impracticable in specific cases.

**R12-1-1103. Additional requirements for inactive mills**

- A. Before abandonment, sale, or transfer of any kind and in any manner of a tailings site, the operator shall determine that all requirements of Section R12-1-1102 are fulfilled at such site. If the requirements of Section R12-1-1102 are not fulfilled at such time, the operator who abandons, sells, or transfers such site shall fulfill the requirements of Section R12-1-1102 and shall, in addition, return to the site any tailings pile material which has been removed from the tailings pile by natural forces.
- B. Before abandonment, sale, or transfer of any kind and in any manner of a tailings site, the operator shall determine that the following requirements are fulfilled:
  1. Ponds shall be drained and covered with materials that prevent blowing of dust. Water drained from the ponds shall be disposed of in a manner approved by the Arizona State Department of Health Services and the AAEC.
  2. Taking into consideration the types of materials at each site, piles shall be leveled and graded so that there is, insofar as possible, a gradual slope to ensure that there shall be no low places on the pile where water might col-

lect. Side slopes shall be stabilized by riprap, dikes, reduction of grades, vegetation, or any other method or combination of methods that will ensure stabilization.

3. The pile shall be stabilized against wind and water erosion. The method of stabilization may consist of vegetation or a cover of soil, soil containing rock or stone, cement or concrete products, petroleum products, or any other soil stabilization material presently recognized or which may be recognized in the future, or any combination of the foregoing as may be required for proper protection from wind, or water erosion.
4. Detailed plans for stabilizing tailings piles shall be submitted to the AAEC for review and approval prior to undertaking stabilization of the pile.
5. If the requirements of R12-1-1103(B)(1), (2), (3), and (4) are not fulfilled before the abandonment, sale, or transfer of a tailings site, the operator who abandons, sells, or transfers such site shall fulfill the requirements of R12-1-1103(B)(1), (2), (3), and (4) and shall, in addition, return to the site any tailings pile material which has been removed from the tailings pile by natural forces.

**R12-1-1104. Waiver**

The AAEC will waive the requirements of R12-1-1103 for a sale or transfer of a mill tailings site to a person who plans to continue operating the associated mill or mills for the same purpose. Such waiver shall not be granted until the new operator has obtained a license from the AAEC pursuant to Section R12-1-312 of these regulations.

**ARTICLE 13. LICENSE AND REGISTRATION FEES**

**R12-1-1302. Types of Licenses and Registrations**

- A. Category A licenses are shall be those specific licenses which authorize a school, college, university, or other teaching facility to possess and use radioactive materials for instructional or research purposes. A category A license shall may not be combined with any other type of license.
  1. No change.
  2. No change.
  3. No change.
  4. No change.
- B. Category B licenses are those shall consist of specific or general licenses which authorize the application of radioactive material or the radiation therefrom to a human being for medical diagnostic, therapeutic, or research purposes, or the use of radioactive material in medical laboratory testing. Except for a type B6, general medical license, a category B license may not be combined with a license of any other category.
  1. No change.
  2. No change.
  3. No change.
  4. No change.
  5. No change.
  6. No change.
- C. Category C licenses are those shall consist of specific or general licenses authorizing the use of radioactive materials in any activity other than those authorized by a category A, B, or D license. Except as specifically authorized in this Section, a category C license may not be combined with any other type of license.
  1. No change
  2. No change.
  3. No change.
  4. No change.
  5. No change.
  6. No change.

7. No change.
8. No change.
9. No change.
10. No change.
11. No change.
12. No change.
13. No change.
14. No change.
15. No change.

**D.** Category D licenses ~~are the~~ shall consist of the following specific radioactive material licenses. Except for type D4, depleted uranium and type D14, additional facilities licenses, a category D license may not be combined with any other license.

1. No change.
2. No change.
3. No change.
4. No change.
5. No change.
6. No change.
7. No change.
8. No change.
9. No change.
10. No change.
11. A low-level radioactive waste land disposal facility license is one which is issued for a "land disposal facility" as that term is used in R12-1-439 and R12-1-442 ~~R12-1-430 and R12-1-431~~, is constructed and operated in accordance with 10 CFR Part 61, 1996 1985 edition Edition, published January 1, 1996, 1985 by the Office of Federal Register National Archives and Records Administration, incorporated herein by reference and on file with the Agency and the Office of the Secretary of State, ~~containing no future editions or amendments~~, and having a ~~has a~~ closure or long term care plan meeting the requirements of 10CFR Part 61.
12. No change
13. No change
14. No change
15. No change
16. No change
17. ~~Reserved A radioactive waste transfer for disposal license is an authorization for the generator of radioactive waste to transfer the radioactive waste for disposal at a licensed disposal site pursuant to R12-1-430 and R12-1-431. This license is subject to a special fee as provided by R12-1-1307, but is exempt from annual fees.~~

**E.** No change.

1. No change.
2. No change.
3. No change.
4. No change.
5. No change.
6. No change.
7. No change.
8. No change.
9. No change.
10. No change.
11. No change.
12. No change.
13. No change.
14. No change.
15. No changes.
16. No changes.
17. No changes.

**R12-1-1306. Schedule of Fees**

**A.** The application and annual fee for each category type are shall be as shown in Table 13-1.

Table 13-1

Category	Type	Annual fee
A1.	Broad academic class A	\$2,600
A2.	Broad academic class B	\$1,500
A3.	Broad academic class C	\$1,200
A4.	Limited academic	\$600
B1.	Broad medical	\$1,650
B2.	Medical materials class A	\$1,400
B3.	Medical materials class B	\$1,000
B4.	Medical materials class C	\$500
B5.	Medical teletherapy	\$1,650
B6.	General medical	\$75
C1.	Broad industrial class A	\$2,200
C2.	Broad industrial class B	\$1,600
C3.	Broad industrial class C	\$1,250
C4.	Limited industrial	\$500
C5.	Portable gauge	\$500
C6.	Fixed gauge class A	\$800
C7.	Fixed gauge class B	\$500
C8.	Leak detector	\$500
C9.	Gas chromatograph	\$300
C10.	General industrial	No Fee
C11.	Industrial radiography class A	\$1,650
C12.	Industrial radiography class B	\$1,500
C13.	Open field irradiator	Full Cost
C14.	Self-shielded irradiator	\$600
C15.	Well logging	\$1,750
D1.	Distribution	\$2,150
D2.	Nuclear pharmacy	\$2,150
D3.	Nuclear laundry	\$2,250
D4.	Depleted uranium	\$100
D5.	General depleted uranium	\$75
D6.	Veterinary medicine	\$500
D7.	General veterinary medicine	\$75
D8.	Health Physics class A	\$600
D9.	Health physics class B	\$450
D10.	Secondary uranium recovery	\$4,000
D11.	Low-level radioactive waste Disposal Site	Full Cost
D12.	Waste processor class A	\$2,250
D13.	Waste processor class B	\$500
D14.	Additional facility	(1)
D15.	Possession only	(2)
D16.		(3)
D17.		Reserved
		(3)
D18.	Unclassified	Full Cost
E1.	X-ray machine Class A (per tube)	\$64
E2.	X-ray machine class B (per tube)	\$44
E3.	X-ray machine class C (per tube)	\$36
E4.	Industrial radiation machine (per device)	\$36
E5.	Major accelerator facility	Full Cost
E6.	Tanning facility (per device)	\$24

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E7. .... Class A laser facility .....	\$150
E8. .... Class B laser facility .....	\$350
E9. .... Class C laser facility .....	\$600
E10. ... Laser light show .....	\$350
E11. ... Medical laser facility (per laser system) .....	\$40
E12. ... Medical RF device facility (per unit) .....	\$40
E13. ... Medical imaging facility (per unit) .....	\$50
E14. .... Class A industrial radiofrequency facility .	\$60
E15. .... Class B industrial radiofrequency facility .	\$180
E16. .... Class C industrial radiofrequency facility .	\$300
E17. .... Other radiation machine ....	Full Cost

- Notes: (1) 20% of the base fee for each additional site, not to exceed 100% additional for all sites.  
(2) 50% of the annual fee for the license type required for full use of the stored radioactive materials.  
(3) See R12-1-1307.

- B.** No change.  
1. No change.  
a. No change.  
b. No change.  
c. No change.  
2. No change.  
3. No change.

**ARTICLE 15. TRANSPORTATION**

**R12-1-1502. Definitions**

- A.** Terms defined in Article 1 have the same meaning when used in this Article. Federal regulations incorporated adopted by reference in this Article are on file at the Agency and the Office of the Secretary of State.
- B.** The following terms have the meaning set forth this Article are on file at the Office of the Secretary of State below.
1. "Special form" means any of the following physical forms of radioactive material of any transport group:
    - a. The material is in solid form having no dimension less than 0.5 millimeter or at least one dimension greater than 5 millimeters; does not melt, sublime, or ignite in air at a temperature of 1,000°F (538°C); will not shatter or crumble if subjected to the percussion test described in Appendix A of this Article and is not dissolved or converted into dispersible form to the extent of more than 0.005 percent by weight by immersion for 1 week in water at 68°F (20°C) or in air at 86°F (30°C).
    - b. The material is securely contained in a capsule having no dimension less than 0.5 millimeter or at least one dimension greater than 5 millimeters, which will retain its contents if subjected to the tests prescribed in Appendix A of this Article and which is constructed of materials which do not melt, sublime, or ignite in air at 1,475°F (802°C) and do not dissolve or convert into dispersible form to the extent of more than 0.005 percent by weight by immersion for 1 week in water at 68°F (20°C) or in air at 68°F (30°C).

**R12-1-1503. Exemptions**

- A.** Common and contract carriers, freight forwarders and warehousemen who are subject to the rules and regulations of the

U.S. Department of Transportation or the U.S. Postal Service are exempt from this Article to the extent that they transport or, for periods of less than 48 hours, or store radioactive material in the regular course of their carriage for another or storage incident thereto. Any carrier who is not subject to the rules and regulations of the U.S. Department of Transportation or the U.S. Postal Service is subject to this Article.

- B.** Any licensee who delivers radioactive material to a carrier for transport, in accordance with R12-1-1506, where such transport is subject to the regulations of the U.S. Postal Service, is exempt from the provisions of this Article.
- C.** Any licensee who delivers to a carrier for transport any package which contains radioactive material having a specific activity of 2 nanocuries per gram (74 k Bq/kg) or less, is exempt from the provisions of this Article with respect to that package.

**R12-1-1504. Intrastate Transportation and Storage of Radioactive Materials**

- A.** No A person shall not transport radioactive materials within this state except as provided in this rule herein.
1. A general license is hereby issued, subject to R12-1-1504(B), (C), and (D) and R12-1-1505, to any licensee to transport and store radioactive material incidental to transportation, provided the transportation is incidental to, and is made to further in furtherance of, the licensee's operations.
  2. A general license is hereby issued by this rule to any common or contract carrier not exempt pursuant to R12-1-103 R12-1-1503(A), or to any private carrier, in accordance with provisions of R12-1-1504(B), (C) and (D).
- B.** ~~When transporting or storing radioactive materials, a person shall comply with The transportation and storage shall be in accordance with the regulations of the U.S. Department of Transportation, in Title 49, Code of Federal Regulations, Revised as of November 1, 1984, 49 CFR 171 through 189, 1995 Edition, published October 1, 1995, incorporated by reference and on file with the Agency and the Office of the Secretary of State, to the extent insofar as such regulations relate to the transporting, loading and storage of packages, package specifications, placarding of the transporting vehicle, shipping documentation and certification and incident reporting. This incorporation by reference contains no future editions or amendments.~~
- C.** No change.
- D.** Persons who transport and store radioactive material under pursuant to the general license in this Section are exempt from the requirements of Article 4 and Article 10 of this Chapter with respect to such transport and storage.

**R12-1-1505 Storing of Radioactive Material in Transport**

- A.** No A person shall not store, for any period in excess of 72 48 hours, any package containing radioactive material bearing a Department of Transportation DOT Yellow II or Yellow III label, unless the radioactive material is stored in an area other than, and not adjacent to, any food storage area or area that is normally occupied by an individual.
1. The radioactive material is stored in an area other than, and not adjacent to, any food storage area or area that is normally occupied by an individual;
- B.2.** A person shall not store radioactive material Radioactive materials shall not be stored with other hazardous materials, except as authorized by 49 CFR 177.848, regulations of the U.S. Department of Transportation U.S. Department of Transportation regulations in 49 CFR 177.848, 1995 Edition, published October 1, 1995, incorporated by reference and on file

with the Agency and the Office of the Secretary of State, containing no future editions or amendments; and

**C.3.** No change.

**D.B.** When transit is interrupted and storage is required for an extended period, the following requirements shall apply:

1. No change.
  - a. No change.
  - b. No change.
  - c. No change.
  - d. No change.
  - e. No change.
  - f. No change.
  - g. No change.
  - h. No change.
2. No change.
3. The licensee or carrier shall immediately notify the Department of Public Safety of an accident involving radioactive material. In the event of any accident involving radioactive materials, the Department of Public Safety, Phoenix Duty Officer, shall be immediately notified.

**R12-1-1506. Preparation of Radioactive Material for Transport**

**A.** ~~No A licensee shall not deliver any package containing radioactive material to a carrier for transport or transport radioactive material, unless the licensee has:~~

1. Complied with the The applicable packaging, monitoring, manifesting, marking, and labeling requirements, appropriate to the mode of transport, of the U.S. Department of Transportation, in 49 CFR 170 through 189, (1984) the U.S. Postal Service in the Postal Service Manual (Domestic Mail Manual), section 124.3, incorporated by reference, 39 CFR 111.1 (1984) 49 CFR 171 through 189, 1995 Edition, published October 1, 1995, incorporated by reference and on file with the Agency and the Office of the Secretary of State. This incorporation contains no future editions or amendments, are complied with, insofar as such regulations relate to the packaging of radioactive material, and to the monitoring, marking and labeling of such packages; and
2. Established procedures Procedures have been established for safely opening and closing packages in which radioactive material is transported; and
3. Assured prior Prior to the delivery of a package to a carrier for transport that: the licensee has assured:
  - a. The package is properly closed, and
  - b. Any That any special instructions needed to safely open the package are sent or made available to the consignee.

**B.** ~~A licensee who transports his own radioactive material shall also comply with all requirements of subsection (A) above.~~

**R12-1-1507. Packaging Quality Assurance**

**A.** ~~Licensees utilizing packages which conform to DOT specification 55 may continue to do so until June 30, 1985, pursuant to the requirements of subsection (B) below, provided no new specification 55 container may be manufactured or placed into use.~~

**B.** ~~Quality assurance of packaging. Any licensee who delivers radioactive material to a carrier for transport in a package:~~

1. ~~For which a license, certificate of compliance or other approval has been issued by the NRC, or~~
2. ~~Which meets the applicable criteria specified in 10 CFR 71, shall have, maintain and execute the quality assurance program specified in 10 CFR 71.~~

**A.** Licensees that transport radioactive material in the course of their business or deliver radioactive material to a carrier for transport in a package for which a license, certificate of compliance, or other approval has been issued by the Nuclear Regulatory Commission, or which meets the applicable criteria specified in 10 CFR 71, 1996 Edition, published October 1, 1996, incorporated by reference and on file with the Agency and the Office of the Secretary of State, shall have, maintain and execute the quality assurance program specified in 10 CFR 71. This incorporation by reference contains no future editions or amendments

**B.** Each licensee shall establish, maintain, and execute a quality assurance program as described in 10 CFR 71, to verify that deficiencies and defective material/equipment relative to the shipment of packages containing radioactive material, are promptly identified and corrected.

**R12-1-1508. Advance Notification of Transport of Nuclear Waste**

**A.** ~~Prior to the transport of any nuclear waste, as defined in Article 1, outside of the confines of the licensee's facility or other place of use or storage, or prior to the delivery of any nuclear waste to a carrier for transport, each licensee shall provide advance notification of such transport to the Agency. For the purpose of R12-1-1508, "nuclear waste" means any large quantity of source, by-product, or special nuclear material required to be in NRC approved packaging while transported to, through, or across state boundaries to a disposal site, or to a collection point for transport to a disposal site.~~

**B.** ~~Each advance notification required by in subsection (A) above R12-1-1508(A) shall contain the following information:~~

1. ~~The name, address, and telephone number of the shipper, carrier, and receiver of the shipment;~~
2. ~~A description of the nuclear waste contained in the shipment as required by the regulations of the U.S. Department of Transportation, 49 CFR 172.202 and 172.203(d) 273.203, 1995 Edition, published October 1, 1995, incorporated by reference and on file with the Agency and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.~~
3. ~~The point of origin of the shipment and the 7-day period during which departure of the shipment will is estimated to occur;~~
4. ~~The 7-day period during which arrival of the shipment at state boundaries will is estimated to occur;~~
5. ~~The destination of the shipment, and the 7-day period during which arrival of the shipment will is estimated to occur; and~~
6. ~~A point of contact with a telephone number for current shipment information.~~

**C.** ~~The licensee shall make the The notification required by subsection (A) shall be made in writing to the Agency. A notification delivered by mail must be postmarked at least 7 days before the beginning of the 7-day period during which departure of the shipment is estimated to occur. The licensee shall maintain a copy A copy of the notification shall be retained by the licensee for 1 year.~~

**D.** ~~No change.~~

**Appendix A. Tests for Special Form Radioactive Material**

1. ~~Free Drop -- A free drop through a distance of 30 feet onto a flat essentially unyielding horizontal surface, striking the surface in such position as to suffer maximum damage.~~
2. ~~Percussion -- Impact of the flat circular end of a 1 inch diameter steel rod weighing 3 pounds, dropped through a~~

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distance of 40 inches. The capsule or material shall be placed on a sheet of lead, of hardness number 3.5 to 4.5 on the Vickers scale, and not more than 1 inch thick, supported by a smooth essentially unyielding surface.

3. ~~Heating~~ — Heating in air to a temperature of 1,475°F and remaining at that temperature for a period of 10 minutes.
4. ~~Immersion~~ — Immersion for 24 hours in water at room temperature. The water shall be at pH 6-pH 8 with a maximum conductivity of 10 micromohs per centimeter.

**ARTICLE 17. RADIATION SAFETY REQUIREMENTS  
FOR WIRELINE SERVICE OPERATIONS AND  
SUBSURFACE TRACER STUDIES**

**R12-1-1715. Leak Testing of Sealed Sources**

~~A licensee shall test each~~ Each sealed source containing radioactive material shall be tested for leakage in accordance with the provisions of R12-1-417 R12-1-429. Records of the leak tests shall be retained for a period of 3 years from the date of the test, and a copy shall accompany the source to Job sites.

**R12-1-1716 Inventory Quarterly inventory**

~~Every 6 months each~~ Each licensee or registrant shall conduct a ~~quarterly physical~~ an inventory to account for all sources of radiation. Records of inventories shall be retained for 3 years from the date of the inventory and shall include the quantities and kinds of sources of radiation, the location where sources of radiation are assigned, the date of the inventory, and the name of the individual conducting the inventory.

**R12-1-1721 Training Requirements**

A. ~~A licensee shall not~~ No licensee shall permit any individual to act as a logging supervisor as defined in this Article 1 until such individual has:

1. No change
  - a. No change
    - i. No change.
    - ii. No change.
    - iii. No change
      - (1) No change
      - (2) No change.
    - iv. No change.
    - v. No change.
      - (1) No change.
      - (2) No change.
      - (3) No change.
  - b. No change.
    - i. No change.
      - (1) No change.
      - (2) No change.
      - (3) No change.
    - ii. No change.
    - iii. No change.
  - c. No change.
    - i. No change.
    - ii. No change.
    - iii. No change.
    - iv. No change.
  - d. No change.
  - e. No change.
  - f. No change.

2. No change.
3. No change.

B. ~~A licensee shall not~~ No licensee shall permit any individual to assist in the handling of sources of radiation until such individual has:

1. No change.
2. No change.

C. No change.

**R12-1-1723. Personnel Monitoring**

A. ~~A licensee shall not~~ No licensee shall permit any individual to act as a logging supervisor or to assist in the handling of sources of radiation unless each such individual wears either a film badge or a thermoluminescent dosimeter (TLD). Each film badge or TLD shall be assigned to and worn by only 1 individual.

B. No change.

C. Personnel monitoring records shall be ~~retained permanently~~ maintained in accordance with R12-1-419(C).

**R12-1-1742. Documents and Records Required at Field Stations**

Each licensee utilizing a field station shall have the following documents and records available for the specific devices and sources used at the field station:

1. No change.
2. No change.
3. No change.
4. No change.
5. No change.
6. ~~Quarterly inventories~~ Inventories of sealed sources required pursuant to R12-1-1716;
7. No change.
8. No change.
9. No change.

**R12-1-1743 Documents and Records Required at Temporary Job Sites**

Each licensee conducting operations at a temporary job site shall have the following documents and records available at that site:

1. No change.
2. No change.
3. No change.
4. When operating in Arizona under reciprocity, a copy of the ~~current out-of-state~~ appropriate license, certificate of registration, or equivalent documents; and ~~Agency authorization to enter the state to perform operations governed by this Article.~~

**R12-1-1751 Notification of Incidents, Abandonment and Lost Sources**

A. Notification of incidents and sources lost in other than down-hole logging operations shall be made in accordance with appropriate provisions of Article 4 of this Chapter.

B. Whenever a sealed source or device containing radioactive material is lodged, the licensee shall ~~notify the Agency of the planned procedures for recovery prior to attempting recovery and shall:~~

1. Monitor at the surface for the presence of radioactive contamination with a radiation survey instrument or logging tool during logging tool recovery operations; and
2. Notify the Agency immediately by telephone if radioactive contamination is detected at the surface or if the source appears to be damaged.

C. No change.

1. No change.
  - a. No change.
  - b. No change.
  - c. No change.
2. No change.
3. No change.
  - a. No change.
  - b. No change.
  - c. No change.
  - d. No change.

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- e. No change.
- f. No change.
- g. No change.
- h. No change.
- D. No change.
  - 1. No change.
  - 2. No change.
    - a. No change.
- b. No change.
- c. No change.
- d. No change.
- e. No change.
- f. No change.
- g. No change.
- h. No change.
- E. No change.

**NOTICE OF FINAL RULEMAKING**

**/ TITLE 19. ALCOHOL, HORSE AND DOG RACING, LOTTERY, AND GAMING**

**/ CHAPTER 3. ARIZONA STATE LOTTERY COMMISSION**

**PREAMBLE**

1. **Sections Affected** **Rulemaking Action**  
/ R19-3-601 Repeal
2. **The specific authority for the rulemaking, including both the authorizing statute (general) and the statutes the rules are implementing (specific):**  
Authorizing statutes: A.R.S. § 5-504(B)  
Implementing statute: A.R.S. § 5-504(B)
3. **Effective Date of the Rule:**  
June 14, 1997
4. **A list of all previous notices appearing in the Register addressing the final rule:**  
**Notice of Rulemaking Docket Opening:**  
2 A.A.R. 4192, October 4, 1996  
**Notice of Proposed Rulemaking:**  
2 A.A.R. 4349, October 25, 1996
5. **The name and address of agency personnel with whom persons may communicate regarding the rulemaking:**  
Name: Mr. Jody Spicola, Executive Director  
Address: Arizona State Lottery Commission  
4740 East University  
Phoenix, Arizona 85034  
Telephone: (602) 921-4400  
Fax: (602) 921-4488
6. **An explanation of the rule, including the agency's reasons for initiating the rule:**  
A.A.C. R19-3-601 sets forth provisions regarding televised drawing broadcasts. This rule is obsolete and has been replaced by a contract.
7. **A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision of this state:**  
Not applicable.
8. **The summary of the economic, small business and consumer impact:**
  - A. The Arizona State Lottery  
There are no identifiable costs to the Commission for this Article. The repealed rule is replaced by a contract.
  - B. Political Subdivisions  
Political subdivisions of this state are not directly affected by the repeal of this rule.
  - C. Businesses Directly Affected by the Rulemaking. (Television stations only)  
There are no costs to local television stations associated with the repeal of this rule. The repealed rule is replaced by a contract using competitive sealed bidding.
  - D. Private and Public Employment.  
Private and public employees are not directly affected by the repeal of this rule.
  - E. Consumers and the Public.  
There are no costs to the public associated with the repeal of this rule.

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F. State Revenues.

This rulemaking will not have an impact on state revenues.

9. A description of the changes between the proposed rules, including supplemental notices, and final rules (if applicable):  
There were no changes between the proposed rules and the final rules.
10. A summary of the principal comments and the agency response to them:  
There were no comments received by the agency.
11. Any other matters prescribed by statute that are applicable to the specific agency or to any specific rule or class of rules:  
Not applicable.
12. Incorporations by reference and their location in the rules:  
None
13. Was this rule previously adopted as an emergency rule?  
No.
14. The full text of the rules follows:

**TITLE 19. ALCOHOL, HORSE AND DOG RACING, LOTTERY, AND GAMING**

**CHAPTER 3. ARIZONA STATE LOTTERY COMMISSION**

**ARTICLE 6. DRAWING BROADCASTS**

Section

R19-3-601. Minimum Considerations

**ARTICLE 6. DRAWING BROADCASTS**

**R19-3-601. Minimum Considerations**

The minimum considerations, which, if offered by a station in its proposal at no cost to the Lottery, shall result in an automatic award of a contract are as follows: If more than one station offers the minimum considerations, the Director shall select drawing broadcasts most advantageous to the Arizona Lottery. The minimum considerations to be provided by the station are as follows:

1. Telecast all instant game grand prize drawings held by the Lottery but not exceeding once each week;
2. Telecast all on-line game drawings held by the Lottery;
3. All off-camera personnel required to assemble and disassemble the drawing sets, to prepare the studio and on-camera drawing participants, and to telecast the drawings;
4. An emcee, hostess or community representative approved by the Executive Director (to be compensated by the station) and on-call backups for all telecast drawings;
5. All studio facilities and equipment necessary to produce and telecast the drawings;
6. Full capabilities to originate remote telecasts of the drawings;
7. One new set annually for each game broadcast and approved by the Executive Director at a cost not exceeding \$6,000.00 per set;
8. A caged security area of not less than 100 square feet;
9. Full capabilities for a "pooled feed" of the drawings;
10. Re-broadcast the drawings once the same night on which they take place, scroll the drawing results once within a half hour of the drawing, and announce the drawing results once between 7:00 a.m. and 9:00 a.m. the following day;
11. Air a total of 35 30-second promotional spots each week according to the following rotation:
  - 5 times during early morning (6:00 a.m. to 9:00 a.m.)
  - 5 times during early fringe (3:00 p.m. to 5:00 p.m.)
  - 4 times during early news (5:00 p.m. to 6:30 p.m.)
  - 5 times during prime access (6:30 p.m. to 7:00 p.m.)
  - 7 times during prime time (7:00 p.m. to 10:00 p.m.)
  - 6 times during late news (10:00 p.m. to 10:30 p.m.)
  - 3 times during late fringe (10:30 p.m. to 12:00 mid-night)
- and 35 ten-second promotional spots each week according to the following rotation:
  - 9 times during daytime (9:00 a.m. to 3:00 p.m.)
  - 6 times during early fringe (3:00 p.m. to 5:00 p.m.)
  - 7 times during early news (5:00 p.m. to 6:30 p.m.)
  - 6 times during prime time (7:00 p.m. to 10:00 p.m.)
  - 7 times during late fringe (10:30 p.m. to 12:00 mid-night);
12. Run one 21-inch black-and-white newspaper advertisement each week;
13. Run one half-page T.V. Guide advertisement each week;
14. 500 household gross rating points each week in non-specified day parts to air Lottery commercials, which include the promotional spots specified in paragraph (11) and two- and four-second ID announcements;
15. Provide, in conjunction with one or more other stations if necessary, complete statewide coverage or as near thereto as practicable.
16. \$30,000 in radio promotion annually;
17. New animation and music once annually for each game broadcast;
18. Security for the public from 8:00 p.m. to 10:30 p.m. each night of a drawing;
19. Inclusion of the Lottery in four promotion events sponsored by the station;
20. A yearly promotional bank of \$50,000 to be used by the Lottery to promote the Lottery through station broadcasts;
21. Provide signage for each on-line Lottery retailer not to exceed 2,500 locations to promote the Lottery and drawing network at a cost not exceeding \$150.00 per location; and
22. Sponsor one Millionaires Reunion annually at a cost not to exceed \$30,000 per event.